Existing Transportation Conditions

3.1 Introduction

This section of the US 95 Coeur d'Alene Corridor Study examines the existing state of the multimodal transportation system in the US 95 Coeur d'Alene corridor. This section describes existing functional classification, mobility, and access management; existing roadway conditions, including roadway characteristics, traffic volumes, level of service (LOS), and safety characteristics; railroad facilities; bicycle and pedestrian facilities; and transit facilities. The existing transportation conditions report helps to form a base of knowledge that will inform future decisions regarding the corridor.

3.2 Background

The US 95 corridor study area is located in Kootenai County, Idaho, and stretches approximately 20 miles from Mica Creek (approximately Milepost (MP) 421) to Ohio Match Road north of Hayden (approximately MP 441). US 95 is a congressionally-designated High Priority Route, linking the United States with Canada and Mexico and traveling through the states of Idaho, Oregon, Nevada, California, and Arizona. The study area is illustrated in **Figure 3-1**.

Within Idaho, US 95 is the only statewide, north-south highway that links the Idaho Panhandle with the rest of the state. US 95 carries interstate commercial truck, farm-to-market truck, recreation, tourist, and local commuter traffic throughout the year. Average Annual Daily Traffic (AADT) ranges from 3,500 to 32,000 on the US 95 Coeur d'Alene Corridor as shown in **Figure 3-2**. **Figure 3-3** illustrates the average daily traffic (ADT), lane geometry, LOS, right-of-way (ROW), traffic control type, access control type, and accident history at key locations along the corridor.

Historically, US 95 has served as an intercity route. The existing US 95 highway configuration and functionality varies greatly within the study area. South of the Spokane River, US 95 is a two-lane highway with a number of horizontal and vertical curves, steep grades (e.g., Mica Hill), and fairly limited local road access. The existing bridge over the Spokane River is narrow, with pedestrian and bicycle traffic limited to a single bike lane on one side. Average annual daily traffic (AADT) on the Spokane River Bridge section is approximately 8,400, most of which is intercity and commute traffic.

The Cities of Coeur d'Alene and Hayden have grown considerably during the last 20 years, most notably within the US 95 corridor north of Harrison Street, particularly the last 5 to 10 years. Much of Coeur d'Alene's commercial and business growth has shifted to the US 95 corridor because of the highway's visibility, proximity to growing residential areas, and availability of affordable and developable land. The corridor's attractiveness has resulted in traffic volumes on US 95 which regularly exceed the highway's optimal carrying capacity, especially during summer seasonal morning and afternoon peak periods. Balancing the mobility and access needs within the US 95 corridor has become both increasingly difficult and important.

It is important to note that US 95 serves as the "backbone" of a much bigger roadway network. Consequently, congestion and poor service levels on US 95 are not just state highway system problems. Poor performance of US 95 translates into delays and congestion on local cross streets, ultimately affecting the efficient movement of traffic on other important local collectors and arterials.

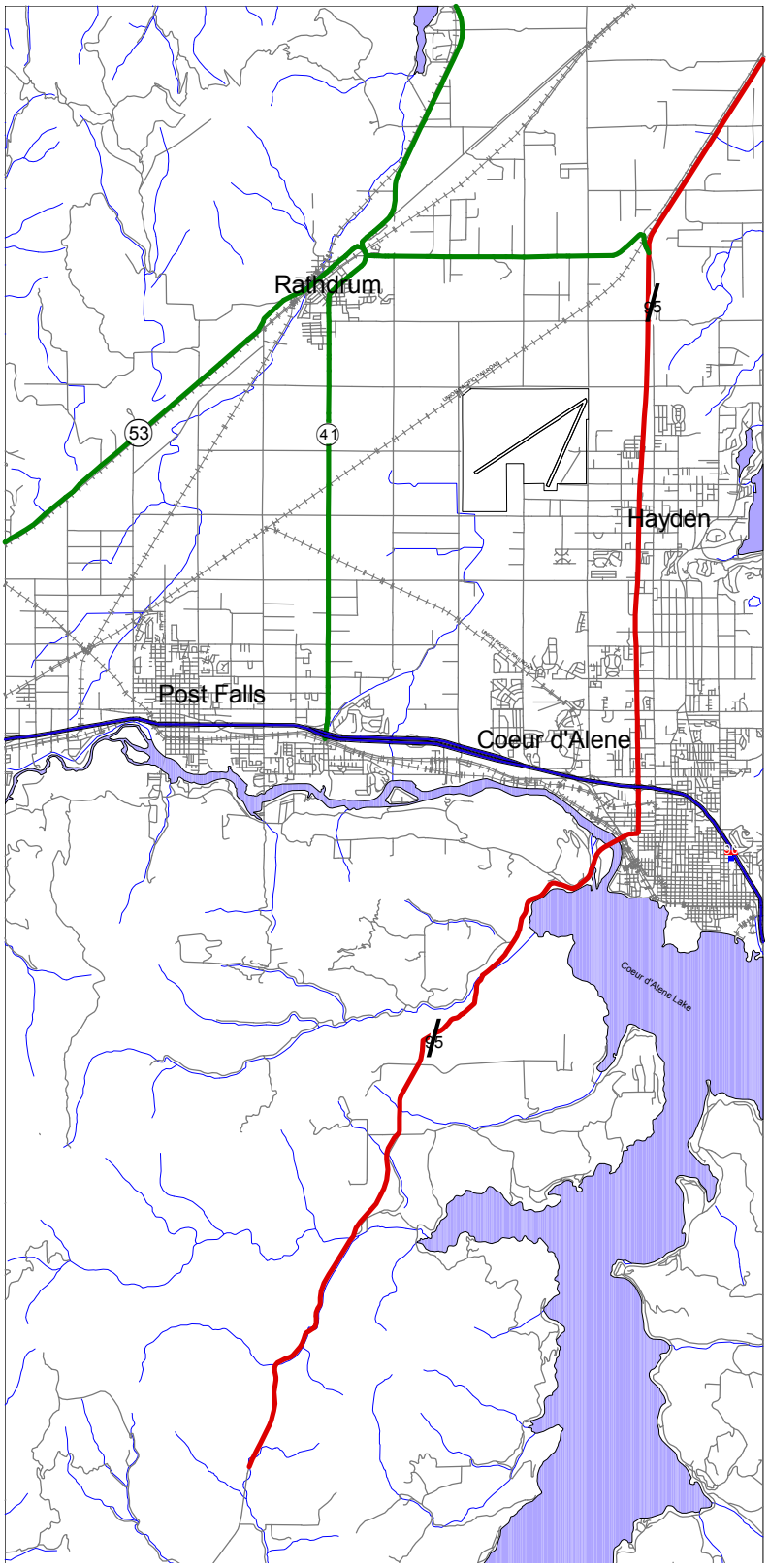
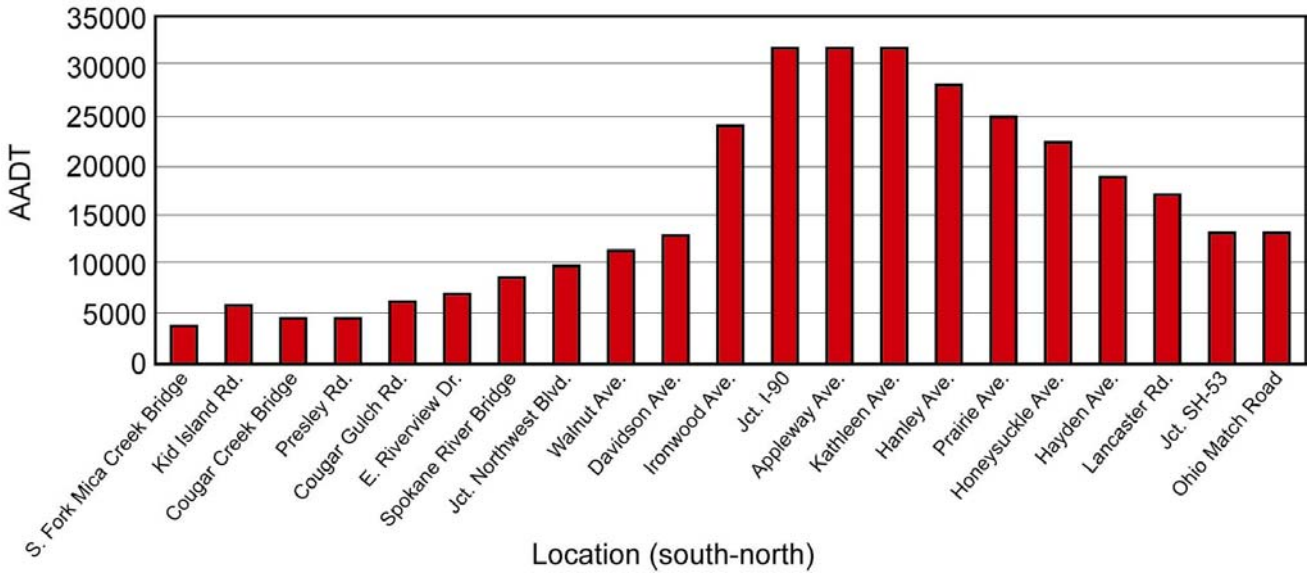


Fig 3-1

US 95 Coeur d'Alene Corridor Study Area

Figure 3-2. Average Annual Daily Traffic (1999) by Location on US 95



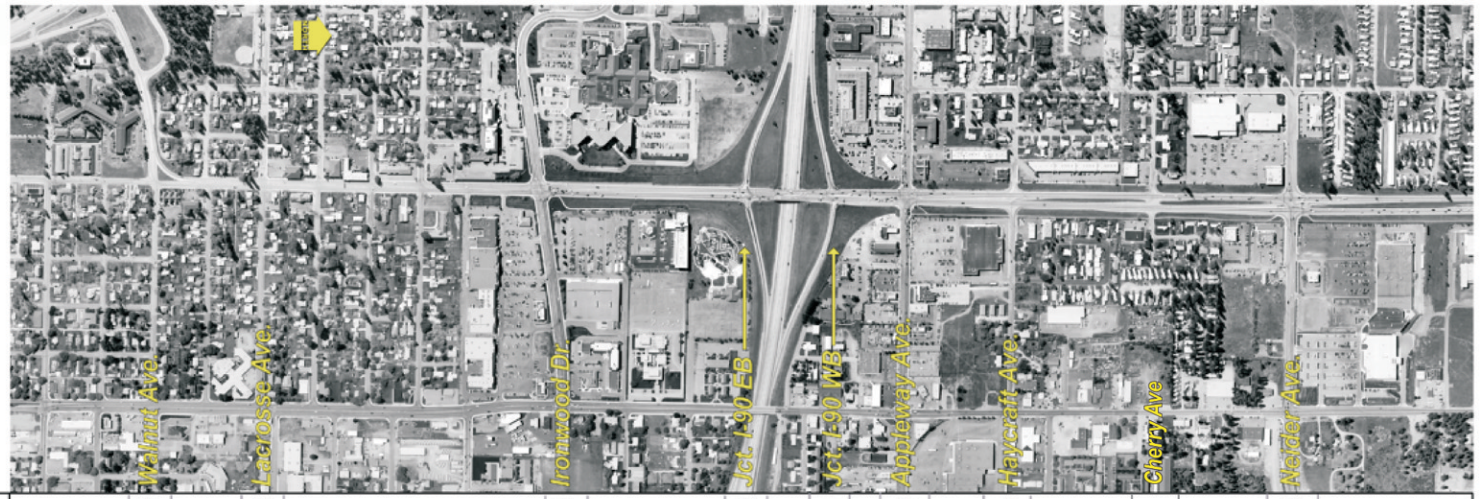
Just north of the Spokane River, US 95 crosses over the Burlington Northern Santa Fe Railroad (BNSF). This serves a local mill, and Northwest Boulevard (Business I-90), with directional ramp access to Northwest Boulevard. The US 95/Lincoln Avenue/Walnut Avenue intersection is somewhat unconventional. A number of geometric (e.g., curve realignment) and traffic safety (pedestrian and street lighting) enhancement options will be explored to help improve the safety and operations of the intersection and vicinity. The Walnut Avenue intersection AADT is 11,000.

From Lincoln Avenue/Walnut Avenue to Ironwood Drive, US 95 transitions to a four-lane urban arterial. Here, near the Kootenai Medical Center, a significant portion of the AADT (15,000) is local trips characterized by destinations within the immediate area. US 95 crosses over I-90 with a full diamond interchange in the section between Ironwood Drive and Appleway Avenue. Local access in this section is limited. The major intersections at Ironwood Drive, the I-90 ramps, and Appleway Avenue are signalized. The ITD and nearby City of Coeur d'Alene traffic signal systems are not coordinated. AADT is approximately 24,000 at Ironwood Drive, 29,000 at the I-90 interchange, and 32,000 at Appleway Avenue.

US 95 is a divided, four-lane highway north of Appleway Avenue through the city of Hayden to Wyoming Avenue. In the last five to ten years, this section of US 95 has seen considerable change with a growing number of business and commercial enterprises locating within the corridor. US 95 transitions back to a two-lane highway north of Hayden. AADT is approximately 32,000 at Kathleen Avenue, 23,000 at Prairie Avenue, 19,000 at Hayden Avenue, and 16,000 at Wyoming Avenue.

Existing Transportation Conditions

Figure 3-3A



Milepost		429.886	430.012	430.336	430.578	430.681	430.765	430.888	431.05	431.212	
# of Lanes	SB										
	NB										
ADT (1998)		11000	12000	24000	29000	32000	28000	28000	27000	27000	
PM Peak Hour LOS	SB			E	C	C	E			C	
	NB										
ROW		95	80								
Traffic Control		2-way STOP						2-way STOP	2-way STOP		
Access Control See Figure 3-5		PC Type III	PC Type III	PC Type III	Full Control Type V			PC Type IV			
# of Accidents (Jan. '97-Dec. '99)		6	5	18	9	5	24	5	2	14	

Key

Level of Service

Grade	Traffic Characteristics	Design Policy Guideline
A	Little or no delay	Desired
B	Minor delay	
C	Moderate delay	
D	Tolerable congestion, noticeable delays	Acceptable
E	Increasing congestion, significant delays	Unacceptable
F	Highly congested, excessively long delays	

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Existing Transportation Conditions

Figure 3-3B

DISTRICT 1
Idaho Transportation Department

Panel 2 of 3

Milepost	431.532	431.781	432.283	432.786	433.018	433.3	433.55	
# of Lanes SB	4	4	4	4	4	4	4	
# of Lanes NB	4	4	4	4	4	4	4	
ADT (1998)	27000	32000	28000	24000	24000	24000	25000	
PM Peak Hour LOS SB	C	D	B	C	C			
PM Peak Hour LOS NB	C	D	B	C	C			
ROW	220	220	220	220	220			
Traffic Control	Signal	Signal	Signal	Signal	Signal	2-way STOP	2-way STOP	
Access Control (See Figure 3-5)	PC Type IV		PC Type IV		PC Type IV			
# of Accidents (Jan. '97-Dec. '99)	7	14	19	15	9	7	6	

Key

Level of Service

Grade	Traffic Characteristics	Design Policy Guideline
A	Little or no delay	Desired
B	Minor delay	
C	Moderate delay	
D	Tolerable congestion, noticeable delays	Acceptable
E	Increasing congestion, significant delays	Unacceptable
F	Highly congested, excessively long delays	

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Existing Transportation Conditions

Figure 3-3C

Idaho Transportation Department – District 1

Panel 3 of 3

	Prairie Ave.	Conta Ave.	Honeysuckle Ave.	Orchard Ave.	Hayden Ave.	Dakota Ave.	Miles Ave.	Lacey Ave.	Wyoming Ave.
Milepost	433.796	434.05	434.3	434.55	434.804	435.055	435.305	435.55	435.807
ADT (1998)	23000	22000	22000	20500	19000	19000	18000	18000	18000
PM Peak Hour LOS	D				E				
ROW	220		220		220				
Traffic Control	Signal	Right-In Right-Out	Signal	2-way STOP	Signal	2-way STOP	2-way STOP	2-way STOP	2-way STOP
Access Control (See Figure 3-5)	PC Type IV		PC Type IV		PC Type IV				
# of Accidents (Jan. '97-Dec. '99)	19	1	26	5	14	14	10	8	9

Key

Level of Service

Grade	Traffic Characteristics	Design Policy Guideline
A	Little or no delay	Desired
B	Minor delay	Desired
C	Moderate delay	Desired
D	Tolerable congestion, noticeable delays	Acceptable
E	Increasing congestion, significant delays	Unacceptable
F	Highly congested, excessively long delays	Unacceptable

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Traffic operations and access issues are quite divergent within the study area. ITD and the cities of Coeur d'Alene and Hayden have responded to the pressure of development to accommodate traffic growth through a variety of means, including modified intersection lane configuration, variable traffic signal control measures and limitations to direct highway access. Certain sections of US 95 immediately north and south of I-90 experience AADT near 32,000 – a level of traffic that marginalizes the corridor's current ability to serve through-traffic, particularly during peak recreation months (characterized by a mixture of commuter, recreation, tourism, and intercity commerce traffic). In addition, the two-lane highway segment north of Hayden is characterized by a relatively high accident rate. Closely spaced median crossings and local pressure for new signals are immediate threats to maintenance of existing service levels.

3.3 Transportation Policy: Functional Classification, Mobility, and Access Management

Streets are typically classified according to their function. Such a classification provides for consistency in construction, operation, and maintenance standards within classifications and an understanding by the public of the importance of specific facilities and their associated improvements within the system. The functional hierarchy of streets provides grouping of streets by the service they provide, facility definitions to handle different desired levels of access and mobility, an understanding of how a street is being used, and guidelines on how streets are to be designed.

In general, roadways provide two functions: mobility and access. From a design perspective, these functions can be incompatible; high or continuous speeds are desirable for mobility, while low speeds are more desirable for access. The logical spacing of a grid arterial and collector street system allows traffic to access all areas of the city without diverting excessive traffic through local streets. Local street intrusion is greatest on streets where such spacing has not been achieved. Local streets within the grid can follow any pattern that does not promote through traffic.

Highway and Street Functional Classification

Figure 3-4 shows the functional classification of roadways in the study area: local arterials and streets as identified in the Transportation Plan prepared by the Kootenai County Area Transportation Team (KCATT) in 1997; and State highways as identified in the State of Idaho 2005 Statewide Rural Functional Classification System Map found in the State Highway Plan. The KCATT Plan describes the existing roadway functional classifications within the Coeur d'Alene Urban Area in Section 1 of the Plan. The following functional classification descriptions were listed in the KCATT Plan:

Interstate

The Interstate promotes movement of traffic, limited access, high speeds, separated directional lanes, adequate geometrics, and grade-separated intersections. I-90 functions as the major east-west corridor through Kootenai County and is the only roadway considered Interstate within the Coeur d'Alene urban area. An Interstate is a specialized principal arterial.

Principal Arterial

Principal arterials are generally the high traffic volume roads within a study area. These roadways contain the greatest amount of through or long-distance travel. Intersecting arterials are commonly spaced ½ to 1 mile apart and access is often limited to encourage fluid traffic patterns. Parking is usually prohibited and speeds are generally in the 35- to 45-mph range in urban situations. Many of the intersections are signalized and the signal placement and coordination are critical to the operation of the arterial. Functional classification maps approved by FHWA identify US 95 as a principal arterial.

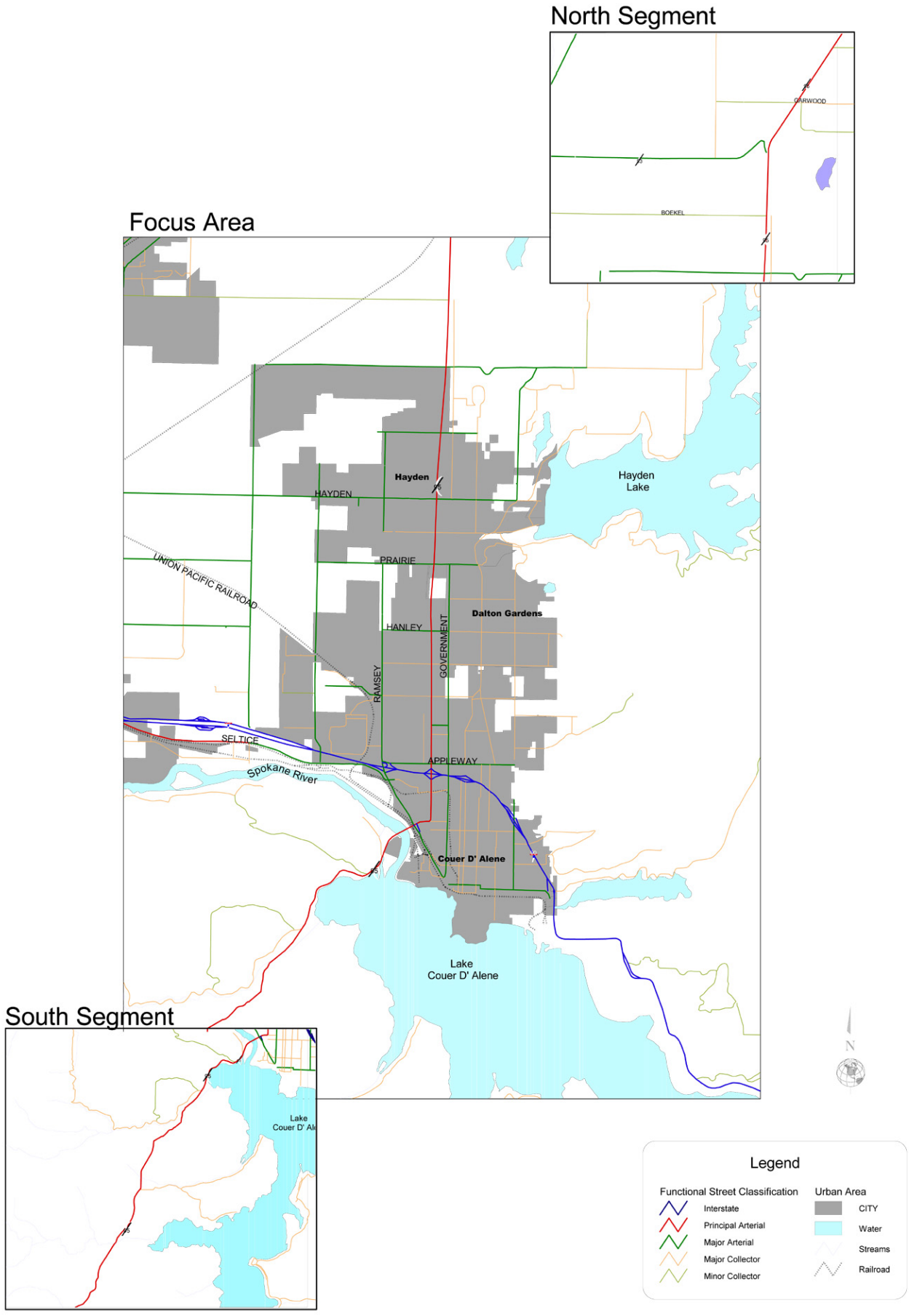


Fig 3-4 Street Functional Classification

Minor Arterial

Minor arterials are roadways that connect principal arterials and collectors. The predominant function of minor arterials is to provide movement of through traffic, but they also provide considerable access for local traffic that originates or is destined to points along the corridors. Often minor arterials become boundaries to neighborhoods and serve less concentrated developments such as neighborhood shopping centers or schools. Urban speeds are generally in the 35-mph range. Access may be restricted and parking is often prohibited in urban situations. Minor arterials in the Coeur d'Alene urban area (as shown on the functional classification map) include:

- SH-53*
- SH-41*
- Huetter Road
- Atlas Road
- Ramsey Road
- Government Way
- Strahorn Road
- Seltice Way
- Northwest Boulevard/Lakeside Avenue/ Sherman Avenue
- 15th Street (southern portion)
- Lancaster Road
- Wyoming Avenue
- Hayden Avenue
- Prairie Avenue
- Hanley Avenue (west of Government Way)
- Kathleen Avenue
- Appleway Avenue

* *Upgraded to principal arterial in 2000.*

Collectors

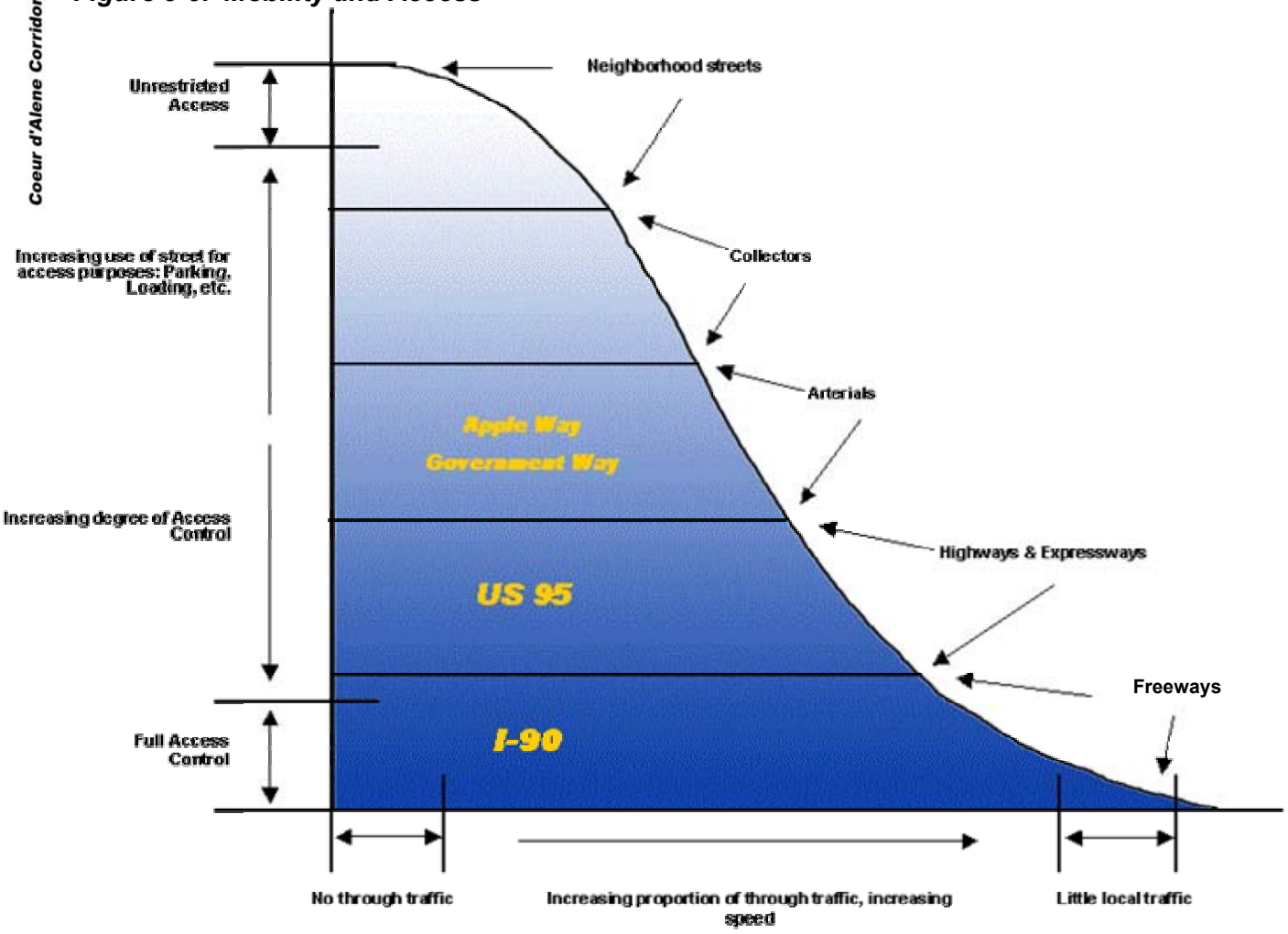
Collectors are intended to assemble and concentrate residential and rural traffic and direct it to the arterial system. Direct access to adjoining property is common and often essential. Operating speeds are in the 25- to 30-mph range. Parking is acceptable, but may be limited. Collectors are in some cases, sub-categorized into major and minor collectors. Major collectors tend to connect important regional facilities directly to the arterials, while minor collectors usually connect to the local roads.

3.4 Mobility

Figure 3-5 shows the relationship of the functional classification to access and mobility. As demonstrated on **Figure 3-5**, unrestricted access is recommended for neighborhood streets, which are intended to carry virtually no through traffic, but serve local traffic and community needs. ITD access control recommendations become increasingly more stringent as the intended use of a roadway or functional classification is designed to accommodate increasing proportions of through traffic and increasing vehicular speed, as well as decreasing amounts of access purposes such as parking or loading. Full access control is recommended for interstate roadways, which are generally not intended to carry local traffic. The function of the street within the roadway system, and the types and intensities of land use along their routes, are important factors contributing to their appropriate designations.

Coeur d'Alene Corridor Study

Figure 3-5. Mobility and Access



Access Management

Access management refers to a number of techniques that can be employed to more effectively manage access to properties adjacent to a roadway. In general, higher functionally classified roadways carry the most traffic. The ITD Access Control policy is tied to the functional classification in that as roadways carry more through traffic there is less need for the roadways to provide local access. Therefore, access control requirements are generally on roadways that carry more through traffic. **Figure 3-6** summarizes ITD's access control policy, which ranges from collector and minor arterials to interstate freeways (see **Appendix G** for detailed description of ITD's Access Control Policy).

US 95 is classified as a *principal arterial* according to ITD standards. **Table 3-1** shows the existing ITD access control classifications for the US 95 corridor. **Table 3-2** shows ITD's access control categories.

Table 3-1

ITD Access Policy – Current Classifications

Location	Mileposts	ITD Access Classification
Mica Creek – Ironwood Dr	419.18 – 430.336	Types III and IV
Ironwood Dr – Appleway Ave	430.336 – 430.765	Type IV
Appleway Ave – Wyoming Ave	430.765 – 435.807	Type IV
Wyoming Ave – Ohio Match Rd	435.807 – 441.164	Type III

3.5 ITD Programmed Improvements

ITD has programmed a number of improvement projects on or near US 95 in the study area. US 95 is scheduled to be widened to four travel lanes between Wyoming Avenue and Ohio Match Road, which would increase capacity and improve safety at the north end of the study area (specific construction year to be assigned when funding is programmed). The Ramsey Road interchange (at I-90) is under reconstruction (scheduled for completion in 2001) and will likely affect US 95 traffic operations over the next one to two years. A new right turn lane was recently constructed on the US 95/I-90 eastbound off-ramp. ITD has also installed a new traffic signal and intersection improvements on US 95 at Honeysuckle Avenue. The City of Coeur d'Alene is planning improvements to widen Government Way, a parallel route located east of US 95 and running from downtown Coeur d'Alene to SH-53. Each of these projects both individually and collectively will influence the overall transportation operations in the US 95 corridor and has been accounted for as part of the overall corridor planning effort. The City is also planning to reconstruct portions of Northwest Boulevard and complete the sidewalk and bridge network between I-90 and downtown. **Table 3-2** summarizes ITD's planned improvements for the US 95 corridor.

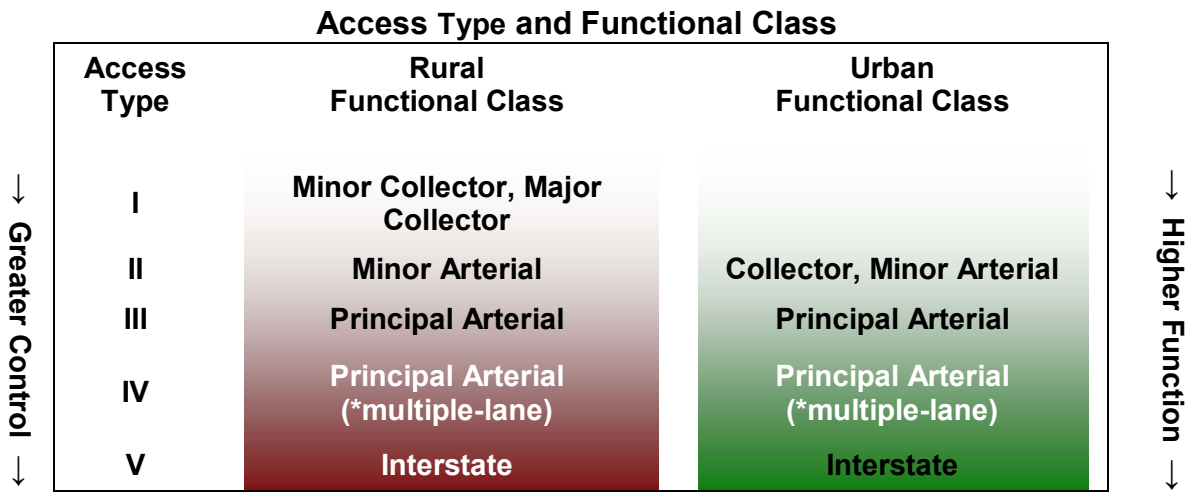
Table 3-2
Summary of US 95 Programmed Improvements in Study Area

Key No.	Location	Mileposts	Fiscal Year	Const. Cost ($,000)	Type of Project	Funding Source
8065	Wyoming Ave to Ohio Match Rd; Hayden	435.807-441.164	PREL	10,630	Major Widening	National Highway System
8213	Garwood Intersection, Kootenai County	440.00	2004	46	Advance Warning Beacons	State Funded
8389	I-90/US 95 Bridge	430.610-430.620	2004	660	Bridge Deck Rehab	Interstate Maintenance
8397	Mica to Cougar Creek	421.300-426.500	PREL	3,000	Add lanes	National Highway System
8923	Spokane River Bridge	429.415	2006	100	Bridge Deck Rehab	National Highway System
8936	Lancaster to Bottle Bay Road*	436-471	2006	45	Centerline Rumblestrips	National Highway System

Source: Idaho Transportation Department FY 2001-2005 STIP (9/24/00).

*Extends beyond corridor study boundary.

Figure 3-6. ITD Access Control Policy



*Multiple-lane implies two or more thru lanes in the same direction of travel. The highway may or may not be divided.

Approach/Intersection/Signal Spacing Per Access Type

Access type	Rural/ urban	Type	Approaches		Signals	Frontage Roads
			Intersection Spacing	Approach Spacing	Signal Spacing	
I	R	At-grade	0.25 miles (0.4 km)	300 feet (91.4 m)	0.5 miles (0.8 km)	0.25 miles (0.4 km)
	U	Urban sections should be upgraded to Type II or greater				
II	R	At-grade	0.25 mile (0.4 km)	500 feet (0.15 km)	0.5 mile (0.8 km)	0.25 mile (0.4 km)
	U	At-grade	660 feet (201.2 m)	150 feet (45.7 m)	0.25 mile (0.4 km)	0.25 mile (0.4 km)
III	R	At-grade/ Interchange	0.5 mile (0.8 km)	1,000 feet (0.3 km)	0.5 mile (0.8 km)	0.25 mile (0.4 km)
	U	At-grade/ Interchange	0.25 mile (0.4 km)	300 feet (91.4 m)	0.5 mile (0.8 km)	0.25 mile (0.4 km)
IV	R	At-grade/ Interchange	1 mile (1.6 km)	NA	1 mile (1.6 km)	0.25 mile (0.4 km)
	U	At-grade/ Interchange	0.5 mile (0.8 km)	NA	0.5 mile (0.8 km)	0.25 mile (0.4 km)
V	R	Interstate	3 miles (4.8 km)	NA	None	NA
	U	Interstate	1 mile (1.6 km)	NA	None	NA

3.6 Existing Roadway Conditions

3.6.1 Speed Limit

From the south fork of Mica Creek to just south of the US 95/East Riverview Drive intersection, the speed limit is 60 mph. South of the US 95/East Riverview Drive intersection, the speed limit decreases to 45 mph until the Spokane River Bridge, where the speed limit decreases to 35 mph. The speed limit remains at 35 mph until north of Neider Avenue; however, the speed limit drops to 25 mph in the school zone near Lacrosse Avenue when children are present (when beacons flash). North of Neider Avenue, the speed limit increases to 45 mph and remains at this speed as US 95 exits Coeur d'Alene's northern city limits and enters Hayden's southern city limits. The speed limit changes again within Hayden city limits, as it increases to 55 mph just south of Dakota Avenue. The speed limit remains at 55 mph through the Garwood Road intersection, changing to 65 mph at the northernmost end of the study area. **Table 3-3** shows speed limits according to location.

Table 3-3
Speed Limits

Location	Speed Limit (MPH)
South Fork Mica Creek – south of E Riverview Dr	60
South of E Riverview Dr – Spokane River Bridge	45
Spokane River Bridge – north of Neider Ave	35
North of Neider Ave – north of Dakota Ave	45
North of Dakota Ave – north of Garwood Rd	55
North of Garwood Rd – south of Ohio Match Rd	65

3.6.2 Travel Lanes

Within the study area, US 95 ranges from a two to six lane road. **Table 3-4** shows the lane geometry (both directions) along the length of US 95 within the study area. **Figure 3-3** also shows the lane geometry at key locations within the corridor.

Table 3-4
Existing Lane Geometry

Location	Mileposts	Number of Lanes
South Fork Mica Creek	418.00 - 421.21	2
Mica Creek - Cougar Gulch Rd	421.21 - 427.00	3
Cougar Gulch Rd – North of E Riverview Dr	427.00 - 428.80	4
North of E Riverview D. – Linden Ave	428.80 - 429.95	2
Linden Ave – Junction I-90	429.95 - 430.63	4
Junction I-90 – Cherry Ln	430.63 - 431.07	6
Cherry Ln – Wyoming Ave	431.07 - 435.81	4
Wyoming Ave – Ohio Match Rd	435.81 - 441.00	2
Source: ITD Agency Website		

3.6.3 Lane and ROW Widths

Table 3-5 shows truck lane widths at locations along the corridor for which data was available.

Table 3-5
Truck Lane Widths

Location	Mileposts	NB Truck Lane	SB Truck Lane
Mica Creek – Kid Island/Carnie Rds	421.21 - 423.27	12 feet	0 feet
Kid Island/Carnie Rds – South of Presley/Dower Rds	423.27 - 424.00	0 feet	12 feet
South of Presley/Dower Rds – Cougar Creek Bridge	424.00 - 426.50	0 feet	12 feet
Source: ITD Agency Website			

Figure 3-3 shows ROW widths at key locations along the US 95 corridor. **Appendix B** contains a more detailed summary of the ROW in the corridor.

3.6.4 Shoulder Width

Table 3-6 shows typical shoulder width along the length of the US 95 Coeur d'Alene corridor. Widths are presented as an average of the outside shoulders for northbound and southbound travel directions. Therefore, the paved shoulder width is an average of northbound and southbound paved outside shoulders for a specific roadway segment.

Table 3-6
Typical Shoulder Width

Location	Mileposts	Paved Shoulder
South Fork Mica Creek	419.180 - 420.670	0
Mica Creek Bridge	421.210 - 421.290	5
Tall Pines Rd – Kid Island/Carnie Rds	421.380 - 423.270	5
Kid Island/Carnie Rds – South of Presley/Dower Rds	423.270 - 424.100	5
Cougar Creek Bridge – Cougar Gulch Rd	426.614 - 427.000	8
Spokane River Bridge	429.606 - 429.609	0
Junction Lincoln Wy/Walnut Ave	429.882 - 429.886	0
Junction I-90	430.629 - 430.647	8
Cherry Ln – Neider Ave	431.070 - 431.212	9
Dalton Ave – Hanley Ave	432.283 - 432.786	9
Hanley Ave – Canfield Ave	432.786 - 433.018	8
Aqua Ave – Prairie Ave	433.600 - 433.796	8
Prairie Ave – Honeysuckle Ave	433.796 - 434.047	12
Wyoming Ave	435.805 - 435.807	3
North End Divided Highway	436.272 - 436.293	6
Boekel Rd – Junction SH-53	437.829 - 438.925	6
Junction SH-53 – Garwood Rd	438.925 - 440.000	4
Notes: Widths are in feet Source: ITD Agency Website		

3.6.5 Vertical Alignment

Vertical alignment indicates the amount of elevation change along a section of roadway. Several roadway segments within the US 95 Coeur d'Alene study area are classified by ITD as either mountainous or rolling. According to AASHTO, rolling terrain is terrain where the natural slopes consistently rise above and fall below the road or street grade, and where occasional steep slopes offer some restriction to normal horizontal and vertical roadway alignment. Mountainous terrain is terrain where longitudinal and transverse changes in the elevation of the ground with respect to the road or street are abrupt and where benching and side hill excavation are frequently required to obtain acceptable horizontal and vertical alignment. **Table 3-7** shows the mountainous and rolling terrain by location along the US 95 Corridor.

Table 3-7
Vertical Alignment – Rolling and Mountainous Terrain Locations on US 95

Location	Terrain Type
South Fork Mica Creek	Mountainous
Mica Creek Bridge	Mountainous
Tall Pines Rd – Kid Island/Carnie Rds	Mountainous
South of Blackwell Rd – north of Blackwell Rd	Rolling

Source: ITD Agency Website

3.6.6 Passing Sight Distance

Passing sight distance is the minimum sight distance needed on a two-lane, two-way highway that allows a driver to safely complete a passing maneuver without colliding with the oncoming vehicle and without "cutting off" the passed vehicle. **Table 3-8** shows passing sight distance for segments of US 95 for which data were available. The percent passing sight distance refers to the percentage of the roadway segment for which the passing sight distance is greater than 1,500 feet.

Table 3-8
Passing Sight Distances

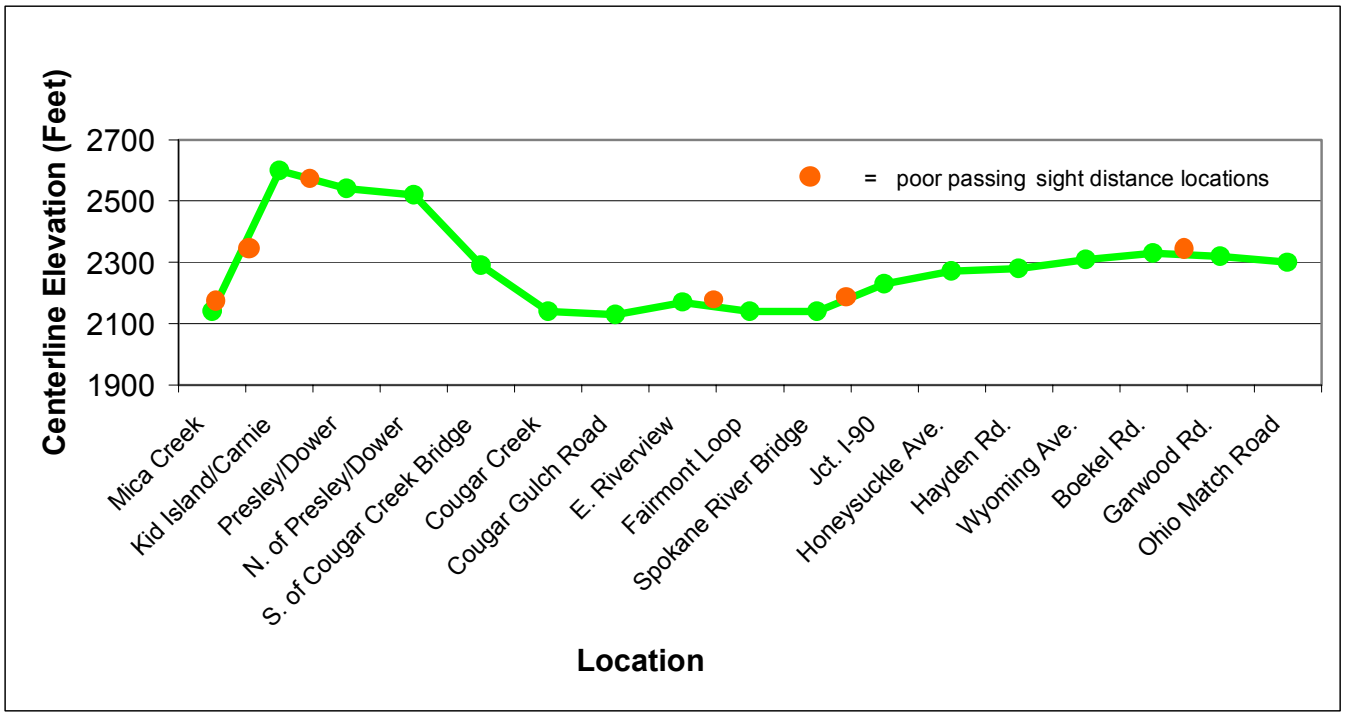
Location	Passing Sight Distance > 1,500 feet[1]
South Fork Mica Creek – south of Mica Creek Bridge	10%
South of Mica Creek Bridge – Mica Creek Bridge	0%
Tall Pines Rd – Kid Island/Carnie Rds	0%
Kid Island/Carnie Rds – south of Presley/Dower Rds	0%
Blackwell Rd	10%
North end Spokane River Bridge	0%
Transition between Divided/Undivided Highway	89%
Boekel Rd – Jct. SH-53	89%
Junction SH-53 – Garwood Rd	0%

1. The passing sight distance column refers to the percentage of a roadway segment for which the passing sight distance is greater than 1,500 feet. A passing sight distance of 100 percent means that the passing sight distance is greater than 1,500 feet for an entire segment. Therefore, a passing sight distance percentage of 0 percent means that for the entire roadway segment, passing sight distance is less than 1,500 feet. Source: ITD Agency Website

Several roadway segments on the US 95 Corridor are characterized by low percentage passing sight distances. Many of these segments are characterized by mountainous terrain, according to ITD classification. In the analysis of future traffic conditions, these sections will be examined in more detail.

Figure 3-7 depicts roadway segments with relatively poor passing sight distances (25 percent and lower) according to elevation. The figure shows that the majority of recorded locations with relatively poor passing sight distances occur in the mountains or hills, where elevation changes quickly.

Figure 3-7. Passing Sight Distances and Elevation



Note: X and Y axes are not proportional.

3.6.7 Base Material and Pavement and Drainage

Appendix B details the types of base material used to construct the road and the types of pavement used to construct the road. The tables include locations for which data were available. **Appendix B** also shows ITD's drainage adequacy rating for the sections of US 95 for which data were available. Two road segments rated "poor" for drainage adequacy.

3.6.8 Pavement Conditions

ITD evaluates pavement conditions using four parameters: rutting, skid resistance, cracking and roughness. **Table 3-9** details cracking and roughness for the study area roadway. ITD classifies pavement condition as Good, Fair, Poor, or Very Poor, based on the lower value of either the Cracking Index or Roughness Index. Those sections having pavement conditions of "poor" or "very poor" are considered to be deficient.

Table 3-9
Pavement Conditions

Location	Mileposts	Cracking Index	Roughness Index	Final Index	Classification
South Fork Mica Creek – Kid Island/Carnie Rds	421.21 - 423.27	2.4	3.2	2.8	Poor
Kid Island/Carnie Rds – Cougar Creek Bridge	423.27 - 426.61	4.0	3.1	3.6	Good
Cougar Creek Bridge – south of Blackwell Rd	426.61 - 428.80	3.5	3.7	3.6	Good
South of Blackwell Rd – Spokane River Bridge	428.80 - 429.61	3.5	2.3	2.9	Poor
Spokane River Bridge – Walnut Ave	429.61 - 429.88	3.5	2.6	3.1	Fair
Walnut Ave – I-90 Interchange	429.88 - 430.63	3.5	2.4	3.0	Poor
I-90 Interchange – Cherry Ln	430.63 - 431.07	4.5	4.1	4.3	Good
Cherry Ln – Hanley Ave	431.07 - 432.79	4.5	3.5	4.0	Good
Hanley Ave – Prairie Ave	432.79 - 433.80	4.0	3.7	3.9	Good
Prairie Ave – Wyoming Ave	433.80 - 435.80	4.0	3.7	3.9	Good
Wyoming Ave – North End Divided Highway	435.80 - 436.27	3.3	3.6	3.5	Good
North End Divided Highway – Jct. SH-53	436.27 - 438.93	4.5	3.3	3.9	Good
Jct. SH-53 – Garwood Rd	438.93 - 441.00	5.0	3.2	4.1	Good

Note: Gray shading indicates segments with "poor" conditions.
Source: ITD Agency Website

3.6.9 Winter Maintenance Standards

The Idaho State Highway Plan identifies six levels of winter maintenance standards for state highway routes not covered by a separate city or county maintenance agreement. US 95 is classified as Level 1 within the study area. Level 1 standards include:

> "Remove snow continually during storms to keep the roads open to traffic and provide a reasonable surface on which to operate, except when blizzard, avalanche, or other severe forms of weather make conditions such that maintenance and motor vehicle operators cannot reasonably negotiate the travel way. Keep at least one lane in each direction open during the storm. Clear the remaining lanes and shoulders after the storm end. Patrol may be established in areas where surveillance is desirable. When effective, apply chemicals or abrasives, separately or in combination to enhance traffic safety. Continue efforts until a trafficable condition exists."

3.6.10 Bridge Inventory

Bridges in Idaho are assigned a sufficiency rating from 0 to 100 (100 representing the best possible conditions). The sufficiency rating for a bridge is determined by its structural adequacy, compliance with current design standards, importance for public use, and eligibility for Highway Bridge Replacement and Rehabilitation Program (HBRRP) funding. To be eligible for Federal Bridge Replacement funding, a sufficiency rating of 50 or less is needed, and a bridge must have a sufficiency rating of between 50 and 80 to be designated in need of rehabilitation. Rehabilitation costs are not allowed to exceed 70 percent of the estimated replacement costs of a bridge. **Table 3-10** shows the sufficiency ratings of the bridges in the study area. Two bridges have sufficiency ratings between 50 and 80, the South Fork Mica Creek Bridge and the Blackwell Slough Bridge. All other bridges along this segment of US 95 are rated higher than 80.

Table 3-10
Bridge Inventory

Bridge Description	Begin MP	Bridge Sufficiency Rating
S. Fork Mica Creek Bridge	419.100	80.4
Mica Creek Bridge	421.210	83.3
Cougar Creek Bridge	426.490	83.2
Blackwell Slough Bridge	428.998	77.5
Spokane River	429.415	64.2
Northwest Blvd. Overpass	429.633	86.2
I-90 Overpass	430.61	70.4

3.6.11 Traffic Control and Turning Lanes

There are 14 signalized intersections along US 95 within the study area. **Figure 3-3** depicts these locations. Signalized intersections include (from south to north):

- Ironwood Drive
- I-90 eastbound ramp
- I-90 westbound ramps
- Appleway Avenue
- Neider Avenue
- Bosanko Avenue
- Kathleen Avenue
- Dalton Avenue
- Hanley Avenue
- Canfield Avenue
- Prairie Avenue
- Honeysuckle Avenue*
- Hayden Avenue
- SH-53/Government Way
- Garwood Road

**Added during study*

The signals on Ironwood Drive, the I-90 Ramps, and Appleway Avenue are coordinated in one closed-loop. The signals from Neider to Hayden are also coordinated in one closed-loop. The two closed loops are coordinated by setting the master controller clocks at the same time and basing offsets from one master controller. Different splits from the yearly calendar are used for seasonal fluctuations. All signals, except the pedestrian signal near LaCrosse Road, are fully actuated. Only the pedestrian, SH-53, and Garwood Road signals are not coordinated.

The stretch of US 95 through Coeur d'Alene and Hayden has several turning lanes. **Appendix B** describes the turning lanes by intersection along US 95 in the study area.

3.7 Traffic Operations

3.7.1 Traffic Volumes

To establish the existing traffic volumes, weekday PM peak hour turning movement counts were conducted in August 2000 at all study intersections except US 95/Appleway Avenue. At Appleway Avenue, a 1999 count provided by the Idaho Transportation Department (ITD) was used. To obtain 2000 volumes at Appleway Avenue, the northbound and southbound through volumes were balanced to reflect the fact that the 2000 volumes along the corridor were consistently lower than the 1999 count at Appleway Avenue showed.

3.7.2 Level of Service Methodology

Level of service (LOS) is a qualitative measure of both the operating conditions of a traffic system as well as the perceived conditions by drivers and passengers. LOS is related to the physical characteristics of the roadway and the different operating characteristics of the roadway when it carries different traffic volumes. LOS ranges from LOS A, which indicates good operating conditions with little or no delay, to LOS F, which indicates extreme congestion and long vehicle delays. The definition of each service level and the methodology for estimating LOS is provided in the *Highway Capacity Manual*, Special Report 209, Transportation Research Board, 1997.

Signalized intersection LOS is defined in terms of the average total vehicle delay of all movements through an intersection. Vehicle delay is a method of quantifying several intangible factors, including driver discomfort, frustration, and lost travel time. Specifically, LOS criteria is stated in terms of average delay per vehicle during a specified time period (e.g., the PM peak hour). Vehicle delay is a complex measure based on many variables, including signal phasing (i.e., progression of movements through the intersection), signal cycle length, and traffic volumes with respect to intersection capacity. **Table 3-11** shows LOS criteria for signalized intersections, as described in the *Highway Capacity Manual* (Transportation Research Board, Special Report 209, 1997).

Table 3-11
Level of Service Criteria for Signalized Intersections

Level of Service	Average Delay Per Vehicle (Seconds)	General Description (Signalized Intersections)
A	Less than 10.0	Free Flow
B	10.1 to 20.0	Stable Flow (slight delays)
C	20.1 to 35.0	Stable flow (acceptable delays)
D	35.1 to 55.0	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	55.1 to 80.0	Unstable flow (intolerable delay)
F	Greater than 80.0	Forced flow (jammed)

3.7.3 Intersection Level of Service

An LOS analysis was conducted for the study area intersections for the PM peak hour. The signalized intersections were analyzed using SIGNAL97. SIGNAL97 is a program for performing capacity analysis, signal timing optimization and design of intersection geometry and control. The methodology uses the capacity analysis procedures documented in the 1997 update to the *Highway Capacity Manual*. LOS values range from LOS A, which indicates good operating conditions with little or no delay, to LOS F, which indicates extreme congestion and long vehicle delays. LOS D is considered acceptable, but LOS C is preferred. LOS is measured in terms of total average intersection vehicle delay for signalized intersections. **Figure 3-8** shows LOS at key intersections along the corridor.

Based on the ITD Corridor Planning Guidebook, evaluations can use a general rating of good, fair, or poor to describe the performance of the system. **Table 3-12** provides a breakdown of LOS criteria, as they would apply to the general rating presented above.

Table 3-12
General Level of Service Ranking

LOS Ranking	General Ranking
A & B	Good
C & D	Fair
E & F	Poor

All of the signalized intersections in the study area operate fair-to-poor. More than half of the intersections operate at LOS conditions that can be considered poor, with a LOS of E or F. The following US 95 intersections operate poorly:

- Ironwood Drive
- Appleway Avenue
- Neider Avenue
- Kathleen Avenue
- Prairie Avenue
- Hayden Avenue
- SH-53/Government Way

The high volume demands on US 95 require that more green time be provided to process the vehicles. As a result the competing traffic volumes on the side streets experience cycle failures as well as on US 95. These cycle failures can cause excessive queuing that could impact nearby intersections and result in LOS conditions poorer than what is reported.

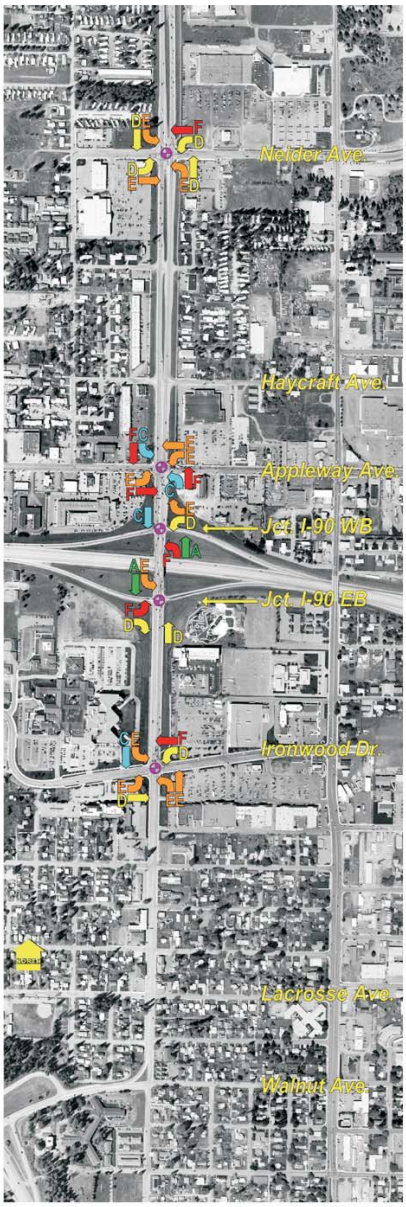
3.7.4 Arterial Operational Analysis

Existing arterial operations were gauged according to the LOS methodology outlined in the 1997 *Highway Capacity Manual* (HCM). There are three distinct arterial characteristics within the 20-mile study area of the US 95 corridor. From the southern study limits to south of Ironwood Drive, US 95 has two lanes and a posted speed of 55 mph. There are additional climbing lanes in a few areas south of Ironwood Drive. For approximately 7 miles, from Ironwood Drive to Hayden Avenue, US 95 has the characteristics of a principal arterial with four lanes and a posted speed limit of 35-45 mph. The highway widens to four lanes from south of Hayden Avenue to Wyoming Avenue and maintains a posted speed limit of 45-55 mph. US 95 has two lanes with posted speed limits of 55 mph from Wyoming Avenue to Government Way. The different characteristics are important to note because LOS is defined differently for highways and principal urban streets. A brief discussion of the differences is highlighted below.

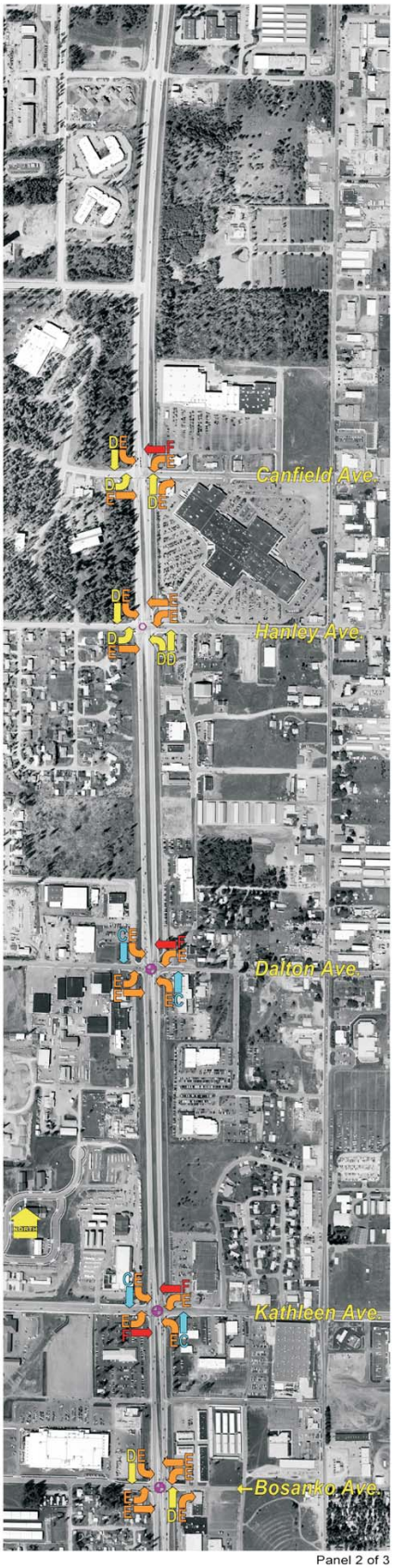
Existing Traffic Conditions- July 2000
Afternoon Peak Hour (4:30 - 5:30)

Figure 3-8

DISTRICT 1
Idaho Transportation Department



Panel 1 of 3



Panel 2 of 3

Panel 3 of 3

Key

Level of Service

Grade	Traffic Characteristics	Design Policy Guideline
A	Little or no delay	Desired
B	Minor delay	
C	Moderate delay	
D	Tolerable congestion, noticeable delays	Acceptable
E	Increasing congestion, significant delays	Unacceptable
F	Highly congested, excessively long delays	

Highway LOS is defined in terms of traffic *density*. Density quantifies vehicle spacing and maneuverability within the traffic stream. LOS can be categorized in terms of density, average vehicle speed, arterial flow rate, or in terms of the v/c ratio. A typical way to summarize LOS is by the vehicle flow rate threshold or by speed thresholds. The threshold applications are established by arterial capacity elements, such as arterial width, design speed, and passing zone availability. Traffic volume elements, such as directional distribution, number of passenger vehicles, number of heavy vehicles, and peak traffic periods are used to determine an "actual" arterial vehicle flow rate or average vehicle speed and these are compared against flow or speed thresholds to define Highway LOS. Chapters 7 and 8 of the HCM are dedicated to the analysis of four-lane and two-lane highway systems, respectively. Although there are some differences in analysis approach, the basic criteria for highways are the same. US 95 has both two- and four-lane sections within the study area.

Arterial Street LOS is a measure of effectiveness that is defined in terms of average through-vehicle travel speed. Arterials are categorized by classifications and each classification has LOS criteria that are categorized according to free-flow speeds. Class can be determined by the purpose of the arterial or the posted/design speed limit. Arterial capacities, traffic volumes, corridor length, number of access points, signal location, and average intersection control delay are used to determine an average vehicle speed. The average speed is then compared with the with the free-flow speed criteria to establish LOS. Chapter 11 of the HCM further defines arterial street LOS.

Highway Capacity Software (HCS), version 3.2 by McTrans was used to determine LOS for highways and arterial streets. This software application is based upon the methodology outlined in the 1997 *Highway Capacity Manual*. The two-lane highway, divided highway, and arterial street modules of the program were used to complete the analysis based upon the different characteristics of the corridor. **Table 3-13** highlights LOS for the US 95 during the existing typical PM peak hour.

Table 3-13
Existing LOS Summary for US 95 – Weekday PM Peak

US 95 From:	US 95 To:	Number Lanes	Posted Speed	Arterial LOS[1]
Government Wy	Wyoming Ave	2	55 mph	E
Wyoming Ave	Hayden Ave	4	55 mph	A/B[2]
Hayden Ave	Ironwood Dr	4	35 mph	C/D[2]
Ironwood Dr	Southern Study Limits	2	55 mph	E

1. LOS = Level of Service
2. X/X = Southbound/Northbound

As shown, the corridor operates between LOS A and E depending upon the location and travel direction. The HCM describes LOS A/B as having near free-flow conditions with little no delay. LOS C/D are predominantly described as a stable condition with some delay and congestion anticipated during peak periods. LOS E and below are characterized as having delays and congestion with the potential for unstable conditions. The two lane sections of the corridor currently operate at LOS E.

3.7.5 Growth Rates

Average 24-hour monthly traffic volumes along US 95 were obtained from ITD's Automatic Counter Volumes. Volume data for Counter 113 (4½ miles north of Hayden, Garwood) included 1996-1999 and data for Counter 48 (Haycraft Road, Coeur d'Alene) included 1992-1999. Based on this data, an annual average growth rate was established for each section of highway for which data exists. **Table 3-14** shows both average monthly volume and annual growth rate by location.

Table 3-14
Average Monthly Volume and Annual Growth Rate

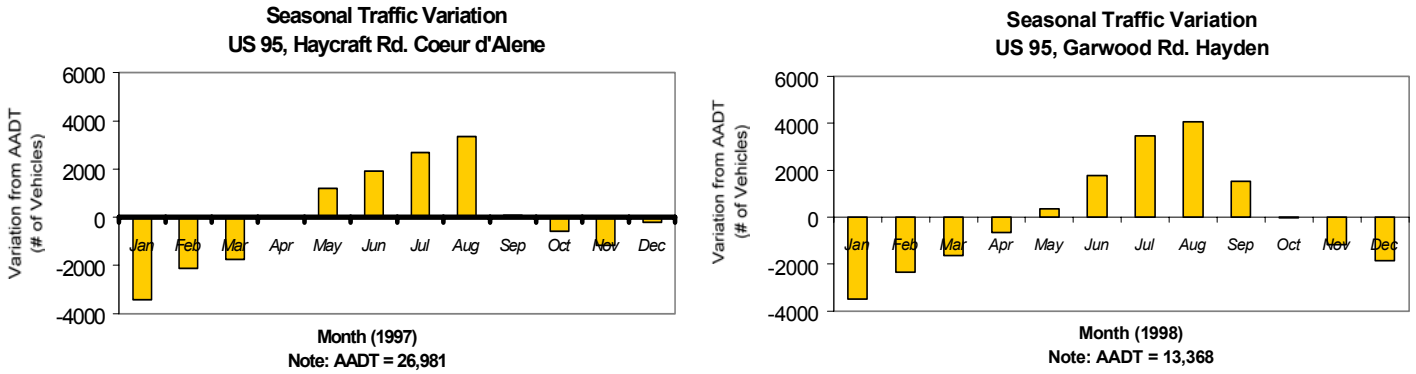
Year	Haycraft Rd, Coeur d'Alene	Garwood Rd, North of Hayden
1992	24,080	—
1993	25,480	—
1994	27,789	—
1995	—	—
1996	26,267	12,395
1997	26,981	12,792
1998	—	13,368
1999	29,978	14,002
Annual Avg.Growth Rate	5.87%*	4.15%

* The annual average growth rate for this site was calculated by averaging the three available annual growth rates (1992-1993, 1993-1994, and 1996-1997).

3.7.6 Seasonal Traffic Variation

Data from two of ITD's permanent counters (located 4½ miles north of Hayden (Garwood Road) and 0.012 miles north of Haycraft Road in Coeur d'Alene) were used to determine seasonal traffic variations on US 95. **Figure 3-9** summarizes this data. The highest volumes at both locations occur during July and August, while the lowest volumes occur during January. Seasonal traffic variation shows a strong summer peak period on US 95 in the Coeur d'Alene region.

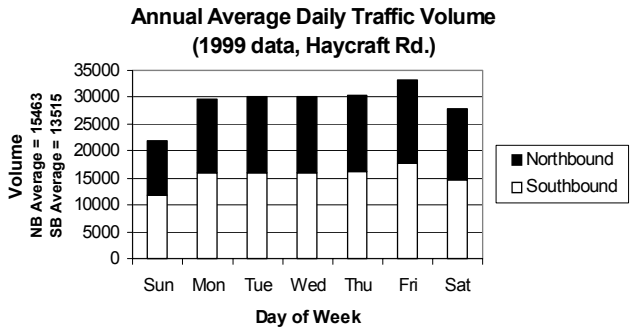
Figure 3-9. Seasonal Traffic Variation

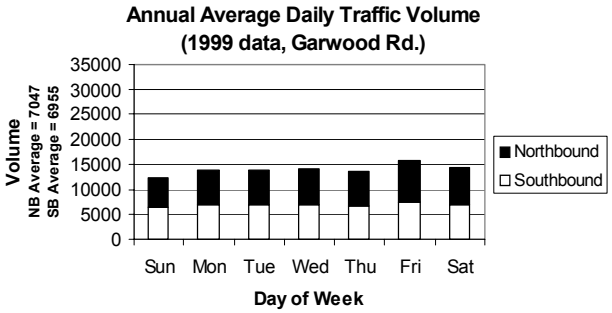


3.7.7 Daily Traffic Variation

Figure 3-10 shows the variation in daily traffic for a typical week along the US 95 corridor in Coeur d'Alene and north of Hayden. Daily traffic volumes are typically highest on Friday and lowest on Sunday. Higher relative Friday volumes are likely due to the combination of work- and recreation-related travel occurring on that day. Volumes remain relatively constant from Monday through Thursday (the standard work week). Overall, traffic volumes at Haycraft Road are nearly twice as heavy as traffic volumes at Garwood Road.

Figure 3-10. Daily Traffic Variation





3.7.8 Hourly Traffic Variation

Figure 3-11 shows the fluctuation of hourly traffic volumes during a typical weekday versus a typical weekend-day at Garwood Road. Weekday traffic at Garwood Road is characterized by a typical two-pronged traffic pattern; in this case the AM peak hour is 8 to 9 a.m., and the PM peak hour is 5 to 6 p.m. Volumes are approximately 1,100 to 1,200 during the PM peak hours, and is slightly greater than 800 during the AM peak hour. Southbound traffic comprises a greater proportion of traffic in the morning hours, while northbound traffic comprises a greater proportion of traffic in the afternoon/early evening hours. This pattern seems to indicate a traffic cycle in which people living north of the Coeur d'Alene urban area commute to work in Coeur d'Alene or surrounding areas. Between the AM peak hour and the PM peak hour, volumes remain between 800 and 900. Traffic volumes drop off sharply after 7 p.m.

Weekend traffic volumes at Garwood Road, on the other hand, follow a different pattern. From 11 a.m. to 7 p.m., traffic volumes are relatively constant at more than 1,000 vehicles; therefore, for approximately six hours, traffic volume is similar to traffic volume during the weekday PM peak hour. Traffic volume gradually increases from 7 a.m. and tapers off gradually in the evening and nighttime hours to pick up again near 7 a.m. At all hours, traffic composition is relatively evenly split between northbound and southbound traffic.

Figure 3-12 shows the fluctuation of hourly traffic volumes during a typical weekday versus a typical weekend-day at Haycraft Road in Coeur d'Alene. Weekday traffic does not show a significant two-pronged commuter peak hour pattern; rather, traffic volumes begin to increase at 7 a.m. and continue to increase throughout the morning hours until volumes reach more than 2,000 at 12 p.m. Volumes remain more than 2,000 until 7 p.m. Weekend traffic volumes at Haycraft Road (**Figure 3-16**) follow a slightly different pattern. Traffic volumes are relatively low in the morning hours, but increase to more than 1,000 at 10 a.m. Traffic volume peaks at approximately 2 p.m. and slowly decreases as the day continues.

Different traffic patterns have been observed at other locations along the corridor. Traffic peaks in the US 95/Ironwood Drive area occur at approximately 7 a.m. and 3:30 p.m., due to the work shifts at the Kootenai Medical Center. At Appleway Avenue, traffic peaks occur at 12 and 4:30 p.m., perhaps indicating the importance of this intersection for shopping and other service uses.

Figure 3-11. Hourly Traffic Variation, Garwood Road, Weekday vs. Weekend

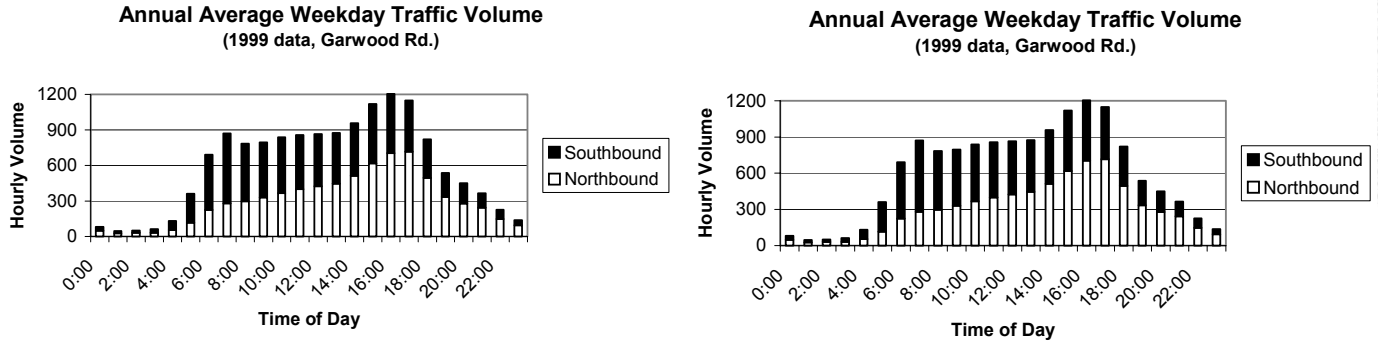
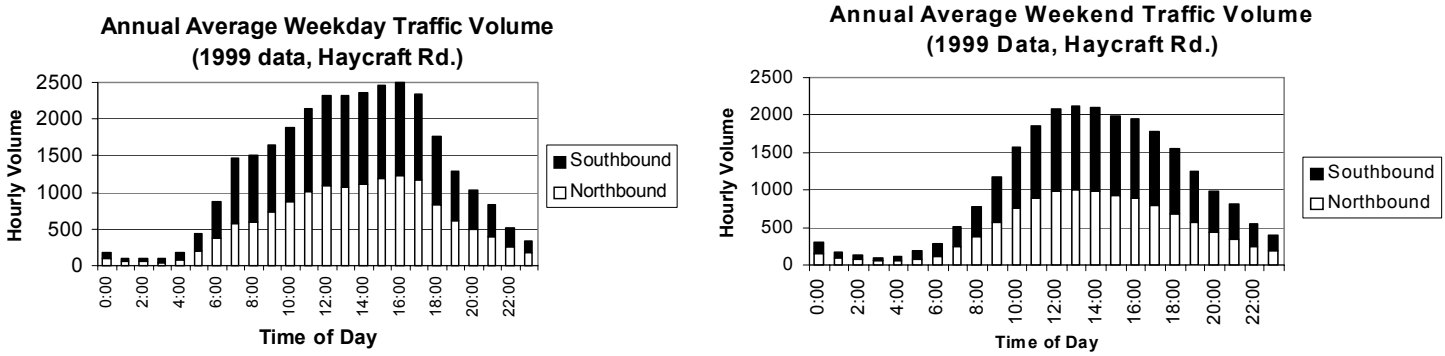


Figure 3-12. Hourly Traffic Variation, Haycraft Road, Weekday vs. Weekend



3.7.9 Heavy Vehicles

US 95 is designated as a truck route. **Table 3-15** shows heavy vehicle volumes at the two locations along US 95 in the study corridor for which ITD has data. Trucks typically comprise approximately 6.3 percent of the total traffic near Hayden and 6.5 percent of the total traffic near Mica Flats.

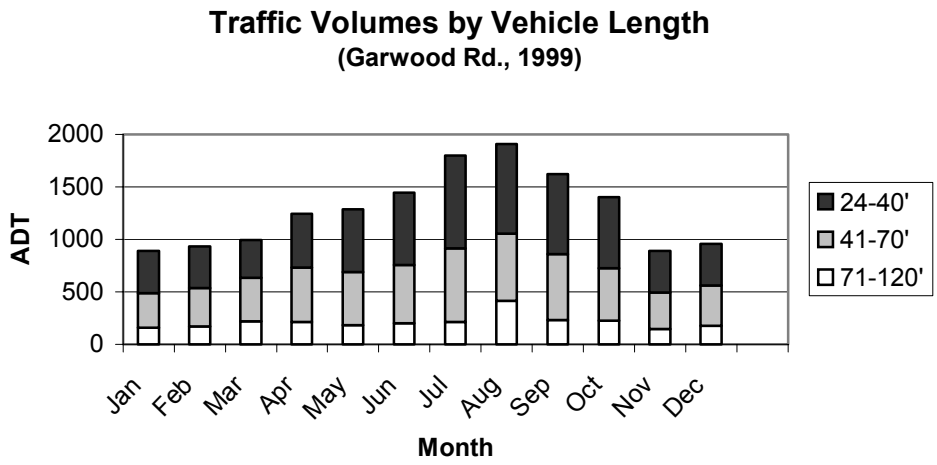
Table 3-15
Vehicle Classification

Location	Trucks		Passenger Vehicles		Other		Total	
	# vehicles	% ADT	# vehicles	% ADT	# vehicles	% ADT	# vehicles	% ADT
Mica Flats	338	6.4%	4,946	93.3%	17	0.3%	5,301	100%
Hayden	293	6.3%	4,342	93.4%	14	0.3%	4,649	100%

Sources: ITD Vehicles Classification Report, 2000 WIM Data, District 1.
IDT AADT Records, 1999.

Figure 3-13 shows variations in traffic volume according to length of vehicle. The volume of vehicles 24 to 40 feet long increases during the summer months; this is likely due to an increase in recreational traffic. The volume of vehicles 41 to 70 feet long also increases slightly during the summer months. The volumes of vehicles 71 to 120 feet long remain relatively constant throughout the year, though volumes increase in August.

Figure 3-13. Traffic Volumes by Vehicle Length



3.7.10 Safety Review

A safety study was performed in the US 95 corridor to provide an understanding of existing safety conditions. The ITD provided a recent accident analysis (July 14, 2000) that identified High Accident Location (HAL) rankings of statewide facilities for both roadway segments and intersections. The HAL analysis utilized a new software program with a new HAL reporting methodology. The objectives of the new HAL program are to:

- Identify locations on the State Highway System with potential safety deficiencies;
- Systematically compare problem locations on a statewide basis; and
- Minimize the probability of identifying artificial problem areas.

The HAL program utilizes two separate methodologies: one to identify problem interchanges and intersections, and one to identify problem roadway segments. The HAL program uses collisions designated as intersection-related to analyze intersections and non-intersection-related collisions in a clustering process to identify roadway segments prone to non-intersection-related collisions.

The HAL program employs the same ranking criteria, with minor variations, for systematically ranking HAL on a statewide basis for both intersections and roadway segments. The position of a location in the HAL listing is determined by its statewide ranking in the following three categories:

1. *Collision frequency*. Locations with a greater number of collisions rank higher than those locations with fewer collisions. To avoid bias toward urban locations with higher volumes, the HAL program combines collision frequency with severity and collision rate.
2. *Severity (Economic Loss)*. Locations characterized by crashes of greater injury severity and economic cost to society are ranked higher. Severity is analyzed and ranked by three separate categories: (1) most harmful event; (2) collisions broken down into speed ranges; and (3) Federal Highway Administration (FHWA) injury cost estimates. Most harmful events and speeds are analyzed because certain types of accidents and higher speeds tend to influence accident severity and help to predict future severity ranges at locations. The FHWA cost is an economic evaluator based on cost data reflecting what people would be willing to pay to avoid types of injury accidents.

3. *Collision rate.* Locations that tend to experience more collisions than expected based on the amount of vehicle travel are ranked higher. Accident rates are a tool used to account for the influence of vehicular volumes on accidents. Thus, accident comparisons that account for traffic volumes are less likely to be influenced by changing volumes and more likely focused on other roadway elements that may be influencing accident statistics.

The data from the ITD report were reviewed to determine potential safety challenges and deficiencies in the corridor. Safety challenges can diminish the operational capacity of a corridor. Capacity is restricted during accidents and "near-miss" conflicts that cause vehicle movement hesitations.

3.7.11 Segment Analysis

The ITD report presents the top 20 accident segments within District 1 when compared to other facilities within the state of Idaho. Three of the District's top 20 accident segments are within the project study area on US 95. The statewide rankings are based on the last three years of collision data (1997-1999) as well as collision frequency, severity (economic loss), and collision rate. **Table 3-16** summarizes the accident ranking data.

Table 3-16
US 95 Cluster Summary

Mileposts	Location Description	Length	Statewide Rank	Avg Annual Accidents	Crashes per Mile
419.371-419.621	Mica Creek Bridge	0.250	3	2.3	28.0
424.690-425.300	Between Presley/Dower Rds and Cougar Creek Bridge	0.610	13	7.0	34.4
430.206-430.336	Between Emma Ave and Ironwood Drive	0.130	39	3.7	84.6
Analysis Time Period: January 1, 1997 – December 31, 1999.					

The locations at the Mica Creek Bridge (MP 419.371 to 419.621) and between Presley/Dower Roads and Cougar Creek Bridge (MP 424.690 to 425.300) are highly ranked due to high severity scores. The location between Emma Avenue and Ironwood Drive (MP 430.206 to 430.336) is highly ranked due to a high frequency score.

Table 3-17 presents the types of accidents that occurred on the 0.250 segment of roadway at Mica Creek Bridge (MP 419.371 and 419.621). The driver action category and the contributing circumstance category are not necessarily related.

Table 3-17
Accident Types at MP 419.371 to 419.621, Mica Creek Bridge

Driver Action	Count	Contributing Circumstance	Count
Negotiating curve	8	Speed too fast for conditions	7
Going straight	2	Drove left of center	2
Stopped in traffic	1	Inattention	2
Avoiding veh/ped	1	Distraction in/on vehicle	1
Analysis Time Period: January 1, 1997 – December 31, 1999.			

The types of accidents occurring at this location suggest that drivers are attempting to negotiate the horizontal alignment at unsafe speeds. A comprehensive analysis consisting of evasive maneuver observations documenting braking action, as well as wheel placement with striping throughout the curve would provide further validation to this conclusion.

Table 3-18 presents the types of accident that occurred on the 0.610 segment of roadway between MP 424.690 and 425.300, Presley Road to Cougar Creek Bridge. There was one fatality at this location.

Table 3-18
Accident Types at MP 424.690 to 425.300, Presley Rd to Cougar Creek Bridge

Driver Action	Count	Contributing Circumstance	Count
Going straight	16	Speed too Fast for Conditions	13
Negotiating curve	9	Drove Left of Center	2
Legally parked	1	Inattention	2
		Off roadway overcorrected	1
		Improper lane change	1
		Following too close	1
Analysis Time Period: January 1, 1997 – December 31, 1999.			

No specific weather-related information was provided with the accident data. Based on the review, this is another section of roadway where drivers are having problems with the roadway alignment.

Table 3-19 presents the types of accidents that occurred on the 0.130 segment of roadway between MP 430.206 and 430.336, Emma Avenue to Ironwood Drive.

Table 3-19
Accident Types at MP 430.196 to 430.36, Emma Ave to Ironwood Dr

Driver Action	Count	Contributing Circumstance	Count
Going straight	11	Failed to yield	6
Turning left	4	Inattention	4
Leaving driveway/alley	4	Vision obstruction	3
Stopped in traffic	2	Following too close	2
Turning right	1	Improper lane change	1
		Exceeding posted speed	1
		Improper turn	1
		Failed to signal	1
		Hit and run	1
Analysis Time Period: January 1, 1997 – December 31, 1999.			

The data presented in **Table 3-19** suggests that a motorists are taking unnecessary risks turning on to or from US 95 at Emma Avenue and the nearby private driveways, likely as a result of the level of traffic congestion on US 95.

3.7.12 Intersection Analysis

The ITD report presents the top 20 accident intersections within District 1 when compared to other facilities within the state of Idaho. Thirteen of the District's top 20 accident segments are within the study area on US 95. However, when ranked against the other facilities within the state, four are in the

top 30 HAL intersections. The statewide rankings are based on the last three years of collision data (1997-1999) as well as collision frequency, severity (economic loss), and collision rate. **Table 3-20** shows the statewide ranking intersection summary for the study area.

Table 3-20
US 95 Intersection Summary Based on State Ranking

Statewide Rank	Cross Street	Avg Annual Accidents
18.0	State Highway 53	8.0
23.0	Honeysuckle Ave *	9.3
25.0	Garwood Rd	5.7
27.0	Appleway Ave	17.0
46.5	Prairie Ave	10.0
62.0	Hayden Ave	7.0
92.0	Ironwood Dr	8.0
99.0	Hanley Ave	8.7
115.5	Kathleen Ave	8.7
121.0	Dalton Ave	7.7
122.5	Wyoming Ave	3.7
124.0	Neider Ave	7.3
132.0	Emma Ave	5.0
* Traffic signal installed after Study began. Analysis Time Period: January 1, 1997 – December 31, 1999.		

As **Table 3-20** shows, the US 95 intersections with SH-53, Honeysuckle Avenue, Garwood Road, and Appleway Avenue rank within the top 30 in the state. Only the US 95/Garwood Road intersection experienced a fatality during the three-year period. **Figure 3-3** shows raw accident numbers at key intersections along the corridor.

A review of the accident reports shows that most of the accidents at the intersections along the corridor are contributed to: failure to yield, inattention, and following too close. The most common accident types along the corridor are rear-end and angle, with rear-end being the dominant accident type. There are two probable cause categories that can contribute to both rear-end and angle type accidents: (1) excessive speed; and (2) high vehicle volumes (limited capacity). Speed studies, as well as a traffic conflict analysis, would provide detailed assessment of the safety issues at each intersection.

To further refine the safety analysis an observation of conflict points would be conducted. When two or more vehicles approach the same point in time and space, one or both of the roadway users must make evasive actions to avoid a collision. The evasive actions may consist of braking, accelerating, and/or swerving. If the evasive actions are not adequately conducted, a collision will result. This type of data helps determine if accidents are a result of primary or secondary conflicts that are occurring in the field (e.g., vehicle stops to avoid pedestrian, primary conflict; vehicle is rear-ended while stopped, secondary conflict/collision).

3.8 Transportation Modes

3.8.1 Railroad Facilities

The section of US 95 within the study area has no at-grade railroad crossings. At the US 95/SH-53 junction, there is a separated grade crossing, where SH-53 goes over the Union Pacific branch line. According to the Kootenai County Transportation Plan and the State of Idaho Railroad Location Map,

there are two spur lines within the study area. The spur lines provide service to lumber mill sites in Post Falls and Coeur d'Alene along the Spokane River. One spur in the study area is a Burlington Northern (BN) Railroad Line that connects with Burlington Northern Sante Fe (BNSF) main line.

According to the Idaho State Rail Plan, the majority of the local rail traffic in District 1 (95 percent of the total and 1.4 million tons/year) is related to the lumber and wood products industry; the spur lines running to Coeur d'Alene primarily serve to ship the area's lumber or wood products. The rail freight traffic density on the two spur lines in the study area is less than 1,000,000 gross ton-miles per mile. There is a small amount of abandoned railway within the study area north of Coeur d'Alene Lake; 0.9 miles of BNSF trackage in Coeur d'Alene was abandoned in February 1977.

Parallel to the UP branch line is the BNSF mainline. This mainline passes through the Idaho Panhandle on its route from Chicago, IL to Portland, OR and Seattle, WA. According to the Idaho State Rail Plan, this line is a very heavily traveled freight line (rail freight traffic density is 20+ million gross ton-miles per mile). The BNSF mainline is classified as a principal line in the Federal Railroad Administration (FRA) rail network.

The closest Amtrak rail passenger service (within Idaho) to the study area is located along the mainline BNSF track running through Rathdrum, Sandpoint, and Bonners Ferry. The service is referred to as the west and eastbound Empire Builder (Amtrak trains 7 and 8, respectively). The Empire Builder runs from Chicago, IL to Portland, OR and Seattle, WA. The Empire Builder makes stops in Spokane, WA and Sandpoint, ID. Both the west and eastbound trains arrive early in the morning.

ITD and SRTC are currently participating in a study called "Bridging the Valley," regarding railroad consolidation. The study is examining moving Union Pacific rail traffic into the BNSF corridor.

3.8.2 Idaho State Rail Plan

The State Rail Plan was adopted in March 1996. The following Goals and Objectives are contained in the Plan.

Goal I: A viable, competitive, and safely operated rail system to serve the citizens of the State of Idaho.

Objectives:

- To remove outdated public institutional and regulatory barriers;
- To level the playing field between transportation modes;
- To coordinate rail planning and implementation activities with State and Local land use policies and advocate mutually beneficial practices, such as the preservation of industrial sites which can be served by rail;
- To reduce the potential for at-grade rail-highway crossing accidents; and
- To promote the development and improvement of rail-served intermodal transportation service throughout the State, both freight and passenger.

Goal II: The retention and maintenance of operations over all lines of the rail system that serve as essential components of the State's transportation system.

Objectives:

- To identify endangered components of the rail system, define problems and causes, and formulate solutions;
- To assure local decision makers understand the importance of retaining rail service and railroad economics;
- To identify all potential sources of federal funds for application in problem situations; and
- To define a dedicated source of State funds for rail service preservation and to encourage the use of Local funds.

Goal III: The preservation of rights-of-way of rail lines for which the prior goal can not be met for future rail or alternative uses.

Objectives:

- To assure Local decision makers are aware of the potential to preserve rights-of-way through the federal Public Use and Interim Trail Use procedures;
- To encourage localities to examine alternative uses of rights-of-way of endangered or abandoned rail lines; and
- To identify potential funding sources – federal, State, and Local – for right-of-way preservation.

3.8.3 Airport Facilities

The US 95 Coeur d'Alene Corridor Plan study area has five airports in the region, including the Coeur d'Alene Air Terminal, the Magee Airport, the Brooks Seaplane Base, Pisch's Place Airport, and Carlin Bay Airport. The Pisch's Place and Carlin Bay Airports are available only for private use, while the other three airports are open to the public. The Coeur d'Alene Air Term Airport, the major airport facility in the area, is shown on **Figure 3-1**.

The *Coeur d'Alene Air Terminal* is located 9 miles northwest of Coeur d'Alene off US 95 and is the largest airport in the area. The airport has two runways. Runway 1/19 is 5,400 by 75 feet and the surface is asphalt and in good condition. Runway 1/19 has two directional traffic patterns: right on Runway 1 and left on Runway 19. Runway 5/23 is 7,400 by 140 feet and the surface is asphalt/grooved and in good condition. Runway 5/23 has two directional traffic patterns: left on Runway 5 and left on Runway 23. The airport has 136 aircraft based on the field (100 single engine airplanes, 21 multi engine airplanes, five jet airplanes, and ten helicopters), and aircraft operations approximate 300 per day. Forty-eight percent of the traffic is transient general aviation, 27 percent is local general aviation, 23 percent is air taxi, and 1 percent is military. Charter flights, flight instruction, and aircraft rental are available at this airport. FAA Airports field personnel last inspected the airport on November 18, 1999. The Coeur d'Alene Air Term Airport is on the National Plan of Integrated Airport Systems (NPIAS) and therefore is eligible for Federal Aviation Administration (FAA) aid. The airport also has grant agreements under FAAP/ADAP/AIP.

The *Magee Airport* is located 23 miles northeast of Coeur d'Alene. The airport has one runway. Runway 18/36 is 2,450 by 150 feet and the surface is turf and in fair condition. The first 700 feet of the north end of the runway is very rough. Runway 18/36 has two directional traffic patterns: left on Runway 18 and left on Runway 36. The airport averages 23 aircraft operations per week. Ninety-two percent of the traffic is transient general aviation and 8 percent is air taxi. State of Idaho aeronautic personnel last inspected the airport on August 9, 1998.

The *Brooks Seaplane Base* is located on the northeast shore of Coeur d'Alene Lake. The airport has two water surface runways. Runway 11/29 is 15,000 by 2,000 feet and has two directional traffic patterns: right on Runway 11 and left on Runway 29. Runway 15/33 is 15,000 by 2,000 feet and has two directional traffic patterns: right on Runway 15 and left on Runway 33. The airport has two aircraft based on the field (two single engine airplanes) and averages 125 aircraft operations per week. Seventy-seven percent of the traffic is air taxi, 15 percent is local general aviation, and 8 percent is transient general aviation. Charter flights and flight instruction are available at this airport. State of Idaho aeronautical personnel last inspected the airport on July 7, 1997.

The *Pisch's Place Airport* is a private facility located 14 miles south of Coeur d'Alene. The airport has one runway. Runway 7/25 is 1,900 by 55 feet and has a turf surface. The runway has two directional patterns: left on Runway 7 and left on Runway 25. The airport has one aircraft, a single engine airplane, based on the field.

The *Carlin Bay Airport* is a private facility located 12 miles southwest of Coeur d'Alene. The airport has one runway. Runway NE/SW is 2,700 by 100 feet and has a turf surface. The runway has two directional patterns: left on Runway NE and left on Runway SW.

3.8.4 Heliport Facilities

The US 95 study area also has four heliports, including the Big Country Heliport, Coeur d'Alene Resort Heliport, Kootenai Medical Center Heliport, and Welburn Heliport. All of these heliports are private facilities.

The *Big Country Heliport* is located south of Coeur d'Alene off US 95. The heliport has one helipad that is 150 by 100 feet and has a left traffic pattern. The helipad surface is asphalt/treated and is in good condition. One helicopter is based on the field.

The *Coeur d'Alene* Resort *Helipad* is located on the northeast shore of Coeur d'Alene Lake. The heliport has one helipad that is 200 by 80 feet with a concrete surface and left traffic pattern.

The *Kootenai Medical Center Heliport* is located 2 miles north-northwest of Coeur d'Alene. The heliport has one helipad that is 60 by 60 feet with a concrete surface and left traffic pattern. The heliport is used for medical purposes.

The *Welburn Heliport* is located 7 miles northeast of Hayden Lake. The heliport has one helipad that is 20 by 10 feet with a concrete surface and left traffic pattern. One helicopter is based on the field.

3.8.5 Bicycle and Pedestrian Facilities

The US 95 Coeur d'Alene corridor travels primarily through the Cities of Coeur d'Alene and Hayden. South of the Spokane River Bridge, the highway has relatively lower traffic volumes, while north of

the Bridge the highway is relatively urban. The primary pedestrian and bicycle facility along the corridor is the Highway 95 Bikeway, a separated multi-use paved path on the eastern side of the highway that stretches from Appleway Avenue in Coeur d'Alene to Garwood Road north of Hayden. The Highway 95 Bikeway complies with ITD standards for separated multi-use pathways (10 feet wide, 5-foot buffer from roadway). The segment of US 95 with the Highway 95 bikeway also has a bridle trail on the western side.

Other pedestrian and bicycle facilities include sidewalks (4 to 6 feet wide on both sides, buffer ranging from 0 to 2 feet) along US 95 from Walnut Avenue to Ironwood Drive, a designated bicycle lane across the Spokane River Bridge on the east side only (both signage and pavement lane symbols), and several pedestrian crossings. The Kootenai County Area Transportation Plan recommends that sidewalks on urban arterials should be 5 feet wide with 12-foot swales separating the sidewalk from the roadway on both sides of the arterial. The most significant gap in the bicycle and pedestrian system is on the I-90 overpass bridge; the bridge has no pedestrian or bicycle facilities and has a narrow shoulder that forces pedestrians and bicyclists onto the highway.

Roadway shoulders may serve as bicycle or pedestrian facilities on stretches of the corridor with relatively lower traffic volumes. On stretches of road with relatively low traffic volumes, roadway shoulders serve the dual purpose of accommodating bicycle and pedestrian traffic and enhancing the roadway for vehicular traffic. According to Appendix B of the Idaho Bicycle and Pedestrian Transportation Plan (January 1995), roadway shoulders generally should be at least 1.8 meters (6 feet) wide to safely accommodate bicycle travel. Minimum shoulder width under severe physical width constraints with a closed shoulder (curb or guardrail) should be 1.5 meters (5 feet). Minimum shoulder width under severe physical width constraints with an open shoulder should be 1.2 meters (4 feet).

Table 3-21 shows the incidences of pedestrian and bicycle accidents along US 95 from January 1995 to December 1999. One fatality occurred during this time period, a pedestrian accident at Garwood Road north of Hayden. One pedestrian accident and one bicycle accident occurred at Lacrosse Avenue (MP 430.012). This intersection is currently a school crossing that connects to Winton Elementary School on Lacrosse Street and is the first pedestrian crossing that northbound drivers reach when traveling into Coeur d'Alene from the south. Appleway Avenue was the intersection with the greatest number of pedestrian and bicycle accidents (two pedestrians and one bicycle).

Table 3-22 shows pedestrian crosswalk locations. All crosswalk locations are demarcated by pavement striping. In addition, all crosswalk locations are located at light-controlled intersections with pedestrian signalization. The crosswalk at US 95 and Lacrosse Avenue also has flashing lights and pavement "School Xing" signage to indicate that the crossing is used by schoolchildren.

According to the Kootenai County Transportation Plan, all bike and pedestrian paths in the county have been constructed by individual communities without a countywide master plan, except the Centennial Trail, which runs from the Washington State Line to Coeur d'Alene Lake. Major trails within the US 95 corridor are listed in **Table 3-23**.

Table 3-21
Bicycle and Pedestrian Accidents, January 1995 – December 1999

Location	Milepost	Bike/Ped	Injury	Fatal
Walnut Ave	429.886	Bike	1	0
Lacrosse Ave	430.012	Ped	1	0
Lacrosse Ave	430.012	Bike	1	0
Between Davidson and Emma	430/168	Bike	1	0
I-90 Overpass	430.336	Bike	1	0
Appleway Ave	430.765	Ped	2	0
Appleway Ave	430.765	Bike	1	0
Haycraft Ave	430.888	Bike	1	0
Cherry Ln	431.050	Bike	1	0
Kathleen Ave	431.781	Bike	1	0
Honeysuckle Ave	434.300	Bike	1	0
Between Junction SH-53 and Garwood Rd	439.990	Ped	1	0
Garwood Rd	440.000	Ped	0	1

Source: ITD Office of Highway Safety Accident Listing.

Table 3-22
Pedestrian Crosswalk Locations

Intersection Location	Milepost	City	Relation to Intersection
US 95 & Lacrosse Ave	429.012	Coeur d'Alene	South of crossroads
US 95 & Ironwood Dr	430.336	Coeur d'Alene	North and South of crossroads
US 95 & Appleway Ave	430.765	Coeur d'Alene	North of crossroads
US 95 & Neider Ave	431.210	Coeur d'Alene	North of crossroads
US 95 & Bosanko Ave	431.497	Coeur d'Alene	South of crossroads
US 95 & Kathleen Ave	431.760	Coeur d'Alene	South of crossroads
US 95 & Dalton Ave	432.283	Coeur d'Alene	North of crossroads
US 95 & Hanley Ave	432.786	Coeur d'Alene	North of crossroads
US 95 & Canfield Ave	433.018	Coeur d'Alene	North of crossroads
US 95 & Prairie Ave	433.796	Hayden	South of crossroads
US 95 & Honeysuckle Ave	434.300	Hayden	South of crossroads
US 95 & Hayden Ave	434.804	Hayden	South of crossroads

Table 3-23
US 95 Corridor Trail System

Trail Name	Location	Type	Condition	Level of Use	Agency
Highway 95 Bikeway	Appleway Ave to Prairie Ave	Bike Route	Not Available	Not Available	City of Coeur d'Alene
Highway 95	Coeur d'Alene to Garwood Rd	Bike Trail	Meets Standards	High	ITD
Highway 95 Bridle	Appleway to State Hwy 53	Horseback Trail	Not Available	Not Available	ITD
Centennial Trail	Adjacent to I-90 from Stateline to Coeur d'Alene*	Bike Trail	Meets Standards	High	ITD

* Although the Centennial Trail is located along I-90, it is an important piece of the trail system in the US 95 corridor region.
Source: *Comprehensive Trail Plan, 8/14/00, Kootenai County Waterways.*

3.8.6 Transit Facilities

Several transit service providers serve Kootenai County and the US 95 corridor. The following inventory of existing transit facilities was generated based on the ITD's *FY 2000 Grant Application Guide* (Division of Public Transportation).

- *Aging and Adult Services*. Retired and Senior Volunteer Program provide volunteers to provide long distance medical rides for seniors in the Coeur d'Alene and Bayview/Spirit Lake areas. This is available as a last resort when no other transportation is available.
- *Airport Express*. Shuttle/charter service to Spokane Airport.
- *Coeur d'Alene Resort*. Shuttle/charter service for resort guests.
- *Coeur d'Alene Tribe*. Demand response service for senior tribal members and Casino shuttle located within the Coeur d'Alene Indian Reservation.
- *Greyhound Bus Lines*. Intercity service for the public (three departures eastbound and westbound each day).
- *Kootenai Medical Center*. Transportation (two vans) to medical appointments and medical center.
- *North Idaho Community Express (NICE)*. Demand response service for the public in parts of Kootenai County and vanpool service for the public between Coeur d'Alene and Sandpoint and the greater Coeur d'Alene area.
- *OmniBus, Inc*. Shuttle tour and charter service throughout Kootenai County
- *Project Transport*. Organized volunteer service for the public in most of Kootenai County.
- *Spokane Transit Authority*. Vanpool service for the public between Coeur d'Alene and Spokane.
- *Sunset Taxi*. Taxi service in the Coeur d'Alene area.
- *Taxi by Hall*. Taxi service in the Coeur d'Alene area.
- *White Tail Transportation, Inc*. Shuttle, charter, and specialized transportation service throughout Kootenai County.

According to ITD's *FY 2000 Grant Application Guide*, the following are the public transportation needs and strategies for Kootenai County relevant to the US 95 corridor:

- *Fixed Route*. Implement hourly circulating loop service in Coeur d'Alene and commuter service between Hayden, Post Falls, and Coeur d'Alene.
- *Demand-response*. Enhance existing service and expand service to the unserved areas of Kootenai County.
- *Rideshare*. Implement service in Kootenai County; maintain rideshare to Spokane.
- *Intercity*. Implement service between Coeur d'Alene and Spokane Transit Authority connection(s) and points in between; enhance existing service and a scheduled stop in Hayden to the service between Sandpoint and Coeur d'Alene and implement service between Rathdrum and Coeur d'Alene; implement feeder service between small communities in Kootenai County and Coeur d'Alene.
- *Volunteer*. Enhance existing service.
- *Coordination*. Seek opportunities to improve coordination of services, especially demand response with volunteer services and with IWG agencies.

The *Movin'* Idaho *Idaho Public Transportation Plan* includes several public transit goals and objectives for each ITD transportation district. The Region 1 public transit goals include:

- *Goal A*: Establish a management system that will coordinate the development of public transit in the region, fostering regional cooperation, while instilling local ownership.
- *Goal B*: Establish a base of support resources and processes that will promote, develop, implement, and sustain existing and new public transit programs.
- *Goal C*: Establish an integrated network of services that will allow for the greatest convenience of use by patron groups, while using available resources in the most efficient manner possible.

3.8.7 Origin-Destination Travel Patterns

Two separate traffic data collection efforts were conducted as part of the study to help identify the current US 95 corridor "users" and their travel patterns, specifically the number, origin, and destination of trips. Several data collection methods were considered, including roadside interview and manual mail-back questionnaire surveys. Each of these methods would have required significant traffic control measures to safely collect the data. A vehicle license plate tracking survey was deployed because it would generally yield the origin and destination patterns in sufficient accuracy for corridor planning purposes and help calibrate the regional travel demand model, but would not require a physical interruption in regular highway traffic operations and potentially cause a safety problem.

Each survey was conducted during the afternoon peak period (3:30 to 7 p.m.) to reflect the heaviest travel demand at each of the sites listed in **Table 3-24**. The first survey was conducted in July 2000 to identify peak summer travel conditions and help calibrate the Kootenai County Regional Travel Demand Model (see separate report) and enhance the model estimates of the various corridor improvement options under study. The second survey was conducted in October 2001 in sufficient detail to: (1) identify off-peak season travel characteristics; (2) classify the data for autos and trucks; and (3) validate the earlier travel data collected in 2000.

Table 3-24
Vehicle License Plate Data Collection Sites

Route	Location
US 95	South of the Spokane River
US 95	At SH-53
US 95 at I-90	Eastbound Off- and On-Ramps
US 95 at I-90	Westbound Off- and On-Ramps
SH-41	Between I-90 and SH-53
SH-53	West of US 95
Northwest Blvd/Ramsey Rd	Eastbound Off- and On-Ramps
Northwest Blvd/Ramsey Rd	Westbound Off- and On-Ramps
*SH-41**	*North of SH-53*
*SH-53**	*West of SH-41*
* Data collection in October, 2001 only.	

The surveys were conducted in such a manner to ascertain and classify traffic on US 95 into the following:

- *Non-stop "External."* Trips on US 95 that begin and end outside the study area (e.g., Moscow or Spokane to Sandpoint).
- *Other "External."* Trips on US 95 that begin and end outside the study area but include an intervening stop within the study area (stopped for dinner while traveling from Spokane to Canada).
- *"Regional."* Trips on US 95 with one trip end (origin or destination) outside the study area (e.g., return from job in Spokane to home in City of Hayden).
- *"Local."* Trips on US 95 with both trip ends within the study area (e.g., a trip from home near downtown Coeur d'Alene to shop at the Silver Lake Mall).

Similar data were summarized for SH-41 and SH-53.

3.8.8 US 95 Mainline

A summary of the July 2000 origin-destination travel pattern on US 95 is illustrated in **Figure 3-14**, typical of traffic conditions just north of Appleway. The US 95 traffic origin-destination pairings were summarized as follows:

- *Local Trips*. Trips that begin and end within the study area.
- *Regional Trips*. Trips with one end outside the study area.
- *Non-Local Trips*. Trips that begin and end outside the study area.

The figure illustrates the low percentage of trips on US 95 (8 percent) that pass through the study area without stopping, indicative of intercity and interstate travel. A majority of the traffic on US 95 is local; mostly commuter, shopping and recreation travel.

The results of the October 2001 survey are shown in **Figure 3-15.** By comparison, the October 2001 survey revealed a similar rate of about 5 percent non-local traffic on US 95**.** On a typical weekday, about 2,500 cars and trucks travel US 95 in the section just north of Appleway, of which about 125 are non-local or non-stop trips through the study area. The remaining portion of US 95 traffic has at least one, if not both, trip ends within the immediate study area. These trips vary by purpose, ranging from homeward commuter trips to Hayden and Coeur d'Alene residences, local shopping trips within the US 95 commercial corridor, or truck deliveries in the study area. **See Appendix B** for a summary of the October 2001 license plate matching data by survey station.

Figure 3-15 also shows the percentage of non-local traffic on SH-53 and SH-41, coupled with summary daily and PM peak hour (typically 4:30 to 5:30 p.m.) traffic volumes reflecting 2000 conditions. On SH-53 west of SH-41, the percentage of non-local traffic is nearly 50 percent (about 230 of the total 475 trips). Most of these trips are passing through only a very small portion of the study area, mainly the City of Rathdrum.

Together, the origin-destination survey findings indicate that: (1) US 95 serves a variety of users, the majority of which are either "local" or at least "regional" where one or both of the trip ends are within the US 95 corridor study area; (2) non-local, or non-stop external trips are only about 5 to 8 percent of the traffic on US 95 (measured at a location immediately north of Appleway); and (3) similar travel patterns are found on SH-41 and SH-53 east of Rathdrum. These findings reflect the current land

activity within the study area, with significant commercial, industrial, business, and residential activities in immediate proximity to US 95, which rely heavily on US 95 for local and regional transportation services. These findings are also similar and consistent with other cities in the Western U.S.

In discussions with the project participants, there was a tendency to interpret these data and findings to mean that only *5 to 8 percent of the study area traffic would shift to a Huetter Alternate Route once constructed.* Careful examination of the regional travel demand model and origin-destination survey findings reveals that a sizeable portion of traffic would shift from the study area state highway and local arterial system to a Huetter Alternate Route, as it would provide a more direct route for some of the *local* and *non-local* study area traffic, not just the non-local traffic currently traveling US 95.

Based on the results of the origin-destination surveys and calibrated travel demand model, the following travel patterns were estimated in the study area.

US 95 at the Spokane River Bridge

During the PM peak hour, traffic on US 95 crossing the Spokane River is heaviest in the southbound direction (64 percent), or outbound from the Coeur d'Alene/Hayden urban area. As shown in **Figure 3-16**, roughly 18 to 20 percent of the bridge crossing traffic ends or begins in the rural residential areas around Riverview Drive, Meadowbrook Road, and Cougar Gulch. The remaining traffic south of the Spokane River begins or ends south of the Mica Bay area. About 38 percent of the southbound traffic on US 95 at the river crossing originates from the central Coeur d'Alene area, 19 percent from I-90 west, 6 percent from I-90 east, 18 percent from the US 95 corridor north of I-90, and 3 percent from US 95 north of SH-53.

US 95 at the I-90 Interchange

During the PM peak hour, traffic on US 95 just south of the I-90 interchange is heaviest in the northbound direction (61 percent) during the PM peak hour, or outbound from the Coeur d'Alene downtown and Ironwood core urban area. As shown in **Figure 3-17**, roughly 54 percent of the northbound traffic at this location originates from Ironwood Drive, and about 21 percent of the traffic originates from US 95 south of the Spokane River Bridge. The destination for northbound traffic at this location is evenly distributed to I-90 westbound (29 percent), I-90 eastbound (26 percent), US 95 corridor (35 percent), and US 95 north of SH-53 (10 percent). US 95 southbound traffic has very similar origin-destination patterns at this location.

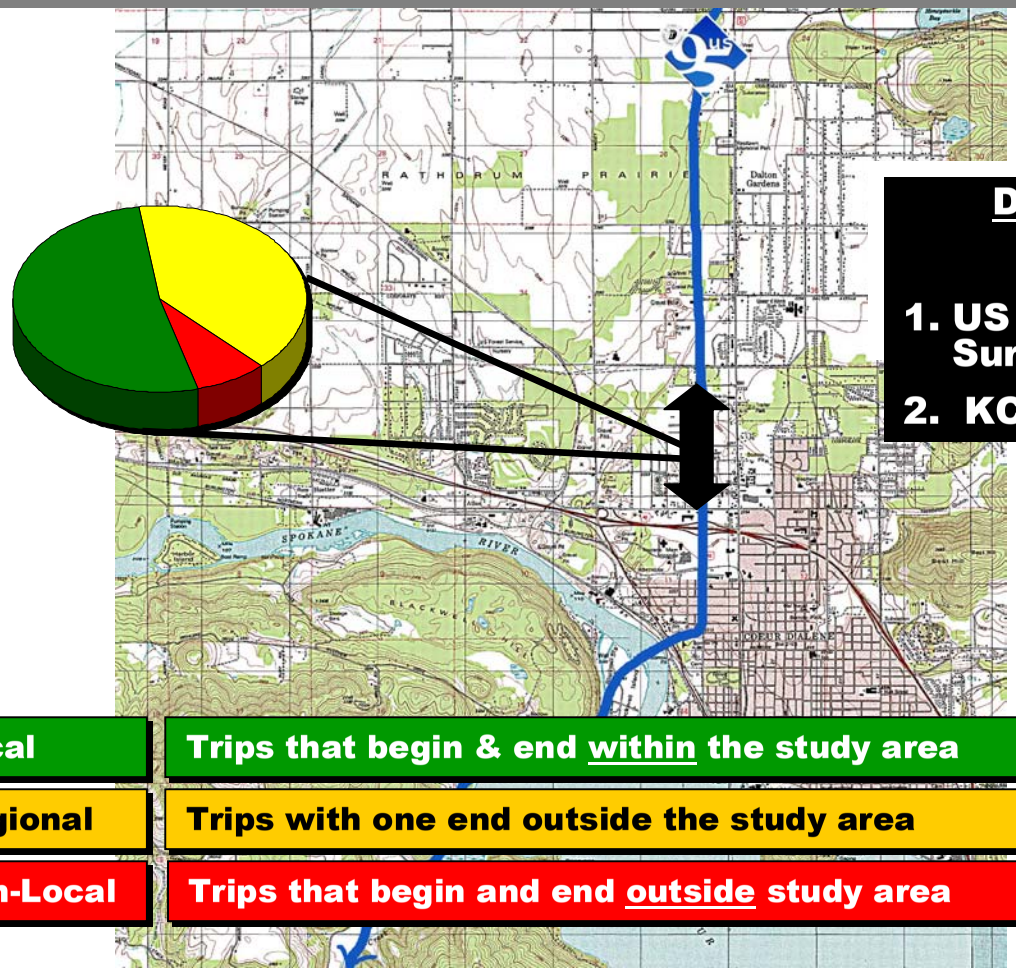
US 95 at Prairie Avenue (North of the City of Hayden)

The distribution of traffic on US 95 north of the City of Hayden, based on the travel demand model estimates, is heaviest in the northbound direction (62 percent) during the PM peak hour, or outbound from the Coeur d'Alene urban area. As shown in **Figure 3-18**, roughly 75 percent of the northbound traffic at this location originates from within the immediate US 95 corridor study area north of I-90) Ironwood Drive. About 12 percent of the traffic originates from I-90 (west and east) and another 13 percent of the traffic originates from south of I-90. Traffic destined to US 95 north of Ohio Match Road and east along SH-53 is about 25 percent of the traffic on US 95 at this location. About 75 percent of the northbound is destined for areas within the immediate US 95 corridor study area.

US 95 Traffic Profile

(at Appleway)

July 2000: PM Peak Hr. Traffic Conditions



Data Sources

1. US 95 Origin-Destination Survey – July 2000
2. KCATT Model

52%	Local	Trips that begin & end within the study area
40%	Regional	Trips with one end outside the study area
8%	Non-Local	Trips that begin and end outside study area

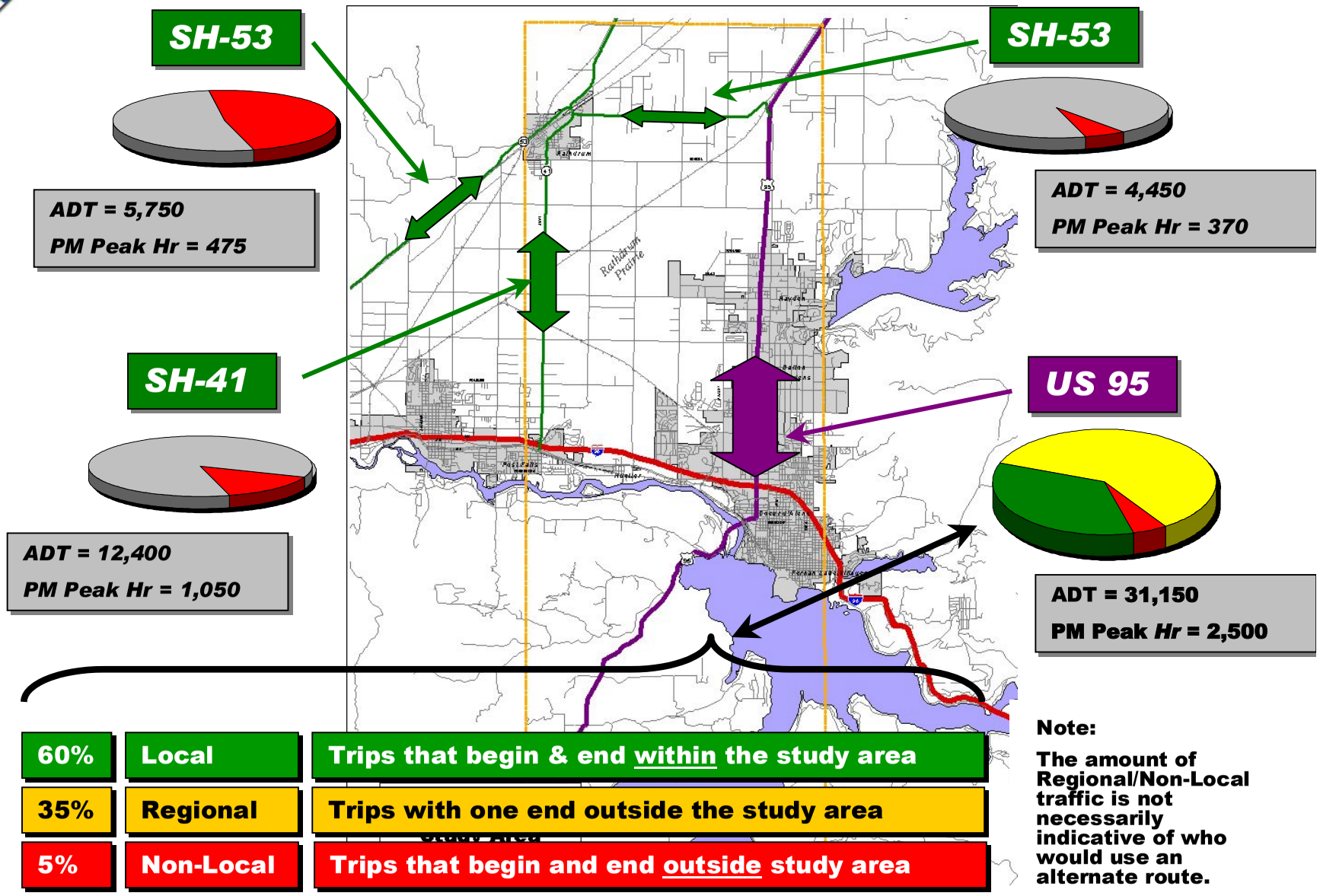
Note:

The amount of Regional/Non-Local traffic is not necessarily indicative of who would use an alternate route.

O-D Survey Findings - Traffic Profile (October 2001)

DISTRICT 1
Idaho Transportation Department

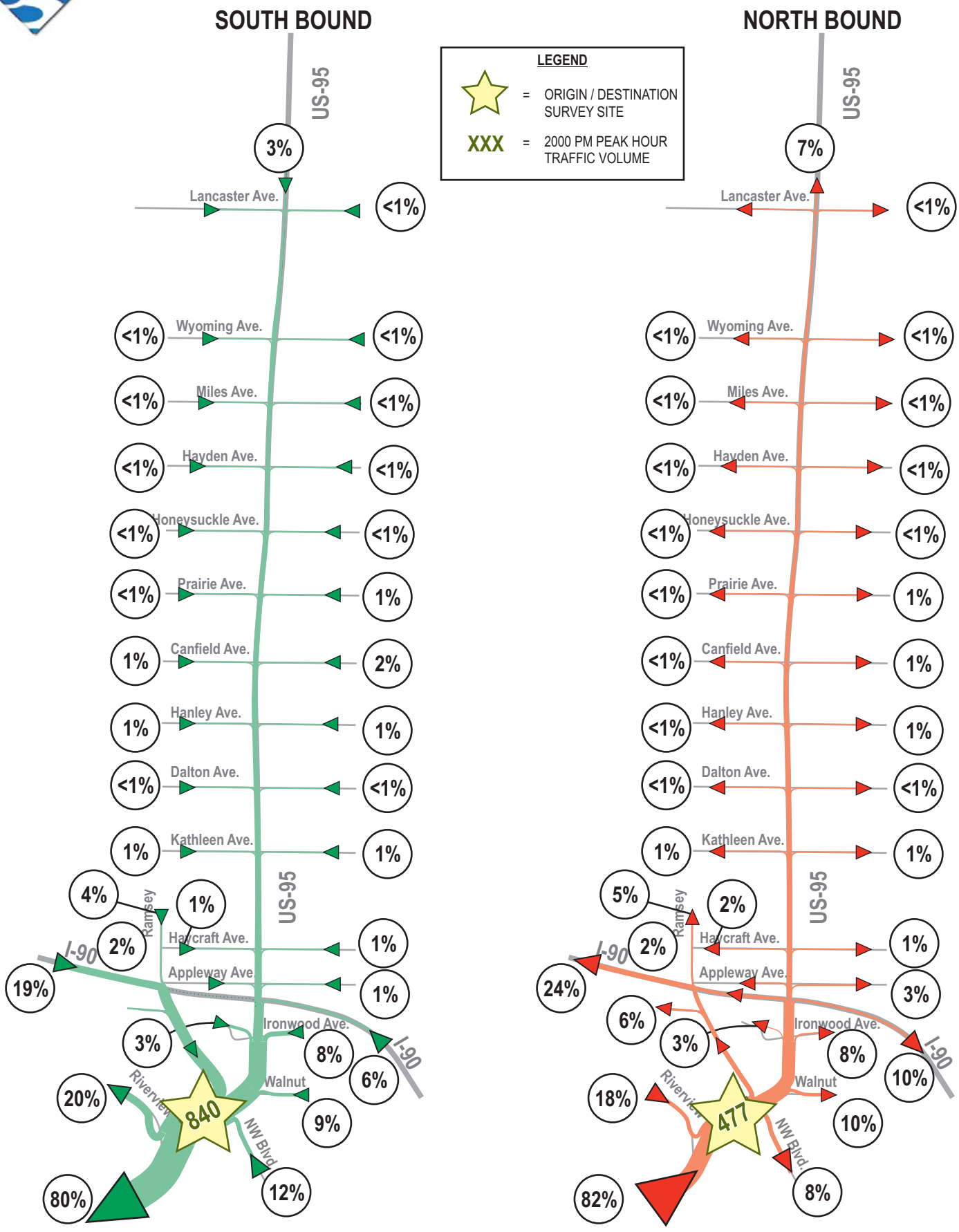
Figure 3-15



US 95 Origins - Destinations (2000 PM Peak Hour)
Spokane River Bridge

Figure 3-16

DISTRICT 1
Idaho Transportation Department



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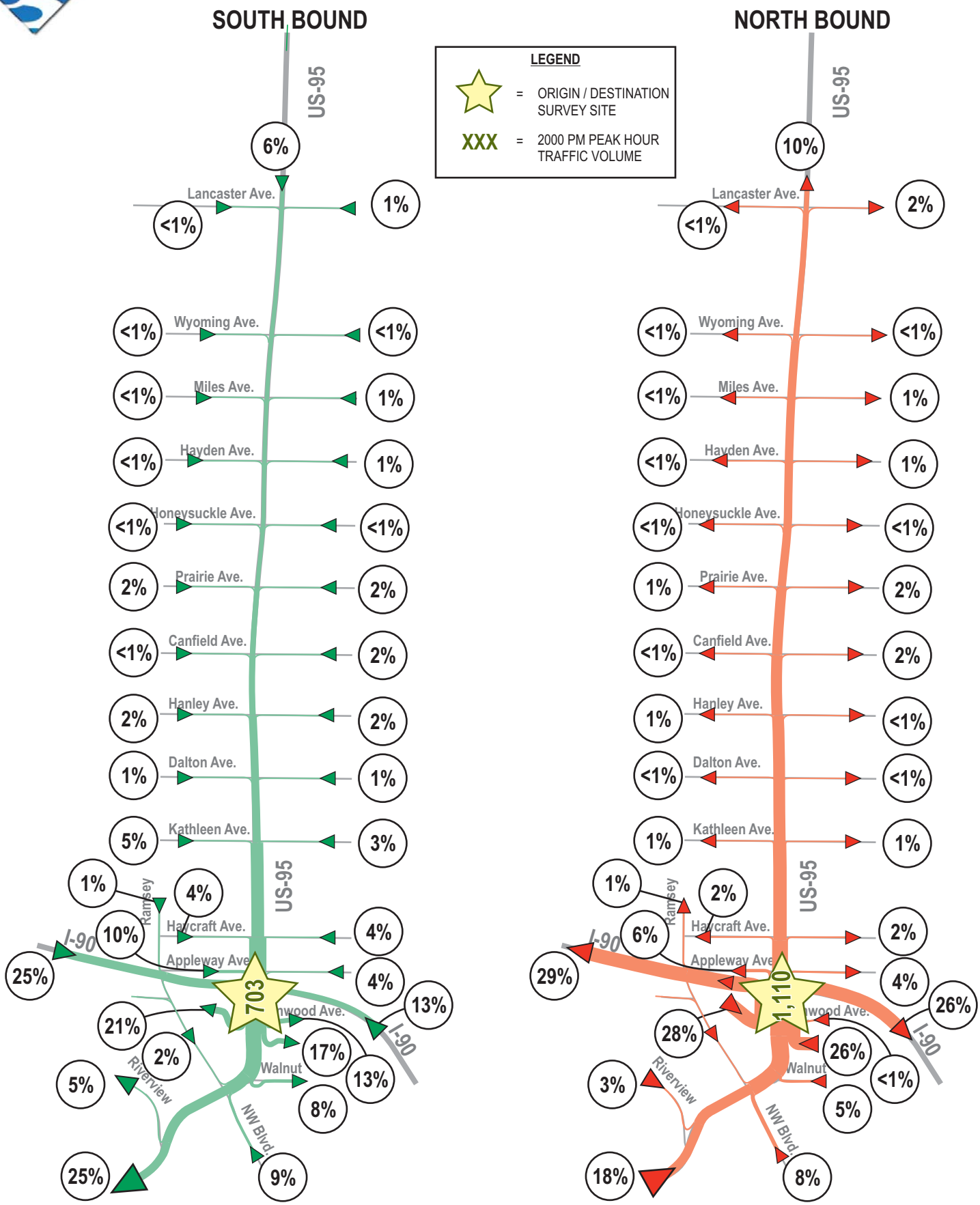
US 95 Origins - Destinations (2000 PM Peak Hour)
North of Ironwood

Figure 3-17

DISTRICT 1
Idaho Transportation Department



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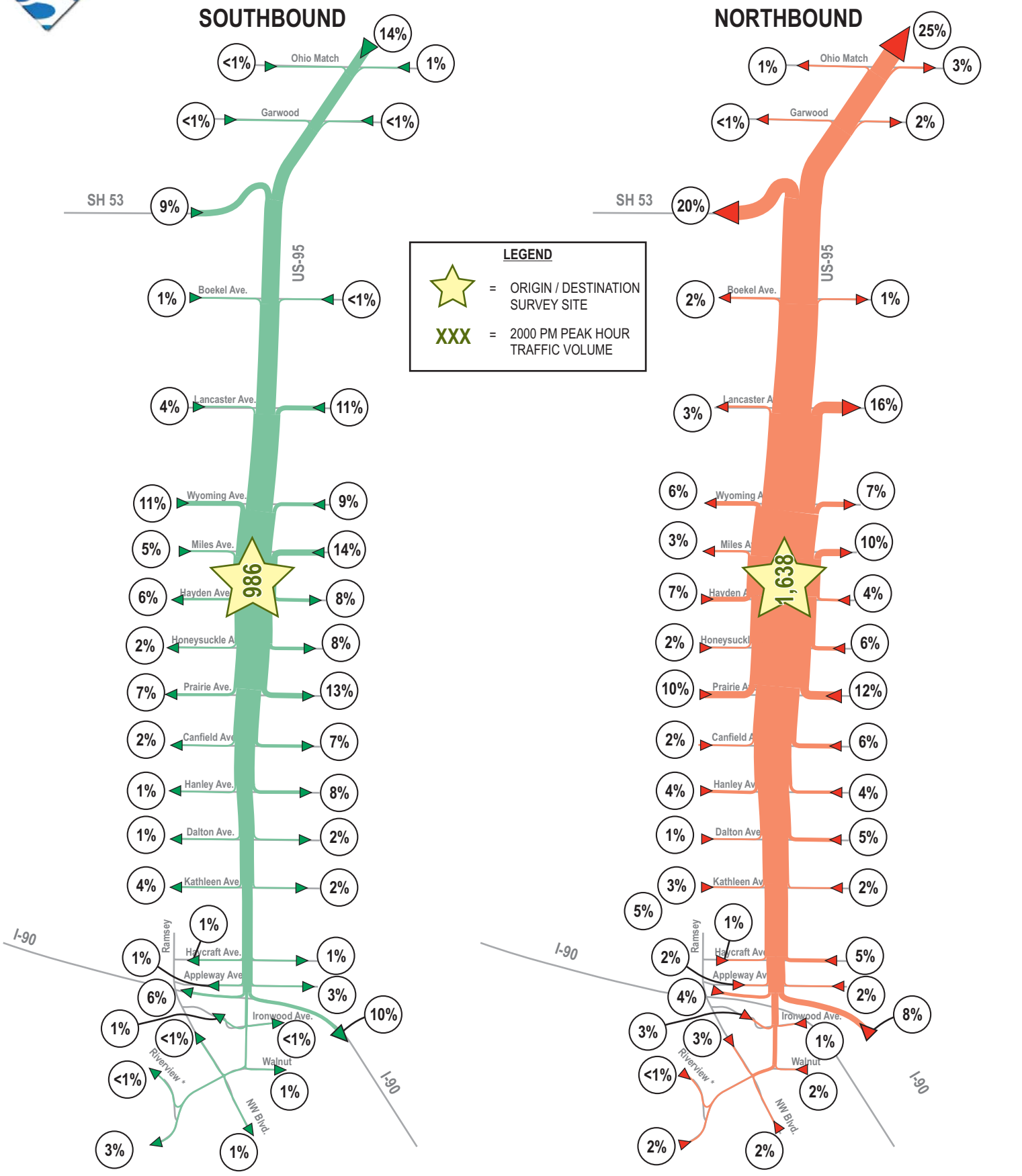
US 95 Origins - Destinations (2000 PM Peak Hour)
North of Hayden

Figure 3-18

DISTRICT 1
Idaho Transportation Department



* Traffic to/from "Riverview" includes traffic on Blackwell Drive and Yacht Club Road.

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US 95 at SH-53

The distribution of traffic on US 95 north of SH-53 is also heaviest in the northbound direction (67 percent) during the PM peak hour, or outbound from the Coeur d'Alene/Hayden urban area. As shown in **Figures 3-19a** and **3-19b**, roughly 14 percent of the northbound traffic at this location originates from I-90, 4 percent originates from US 95 south of the Spokane River bridge, and about 61 percent originates from within the US 95 corridor study area, north of I-90. About 21 percent of the traffic originates from SH-53, SH-41, and Lancaster Avenue to the west. This is a significant amount of traffic that appears to be avoiding the US 95 corridor.

SH-41 at Prairie Avenue

The distribution of traffic on SH-41 at Prairie Avenue is also heaviest in the northbound direction (62 percent) during the PM peak hour, or outbound from the Post Falls area. As shown in **Figures 3-20a** and **3-20b**, roughly 64 percent of the northbound traffic at this location originates from I-90, another indicator of traffic that may be avoiding US 95 congestion by using SH-41 as an alternate. The destination for northbound traffic at this location is predominantly Rathdrum to the north (52 percent), with a significant share ending up at US 95 via SH-53 (14 percent), Lancaster (9 percent), Hayden (11 percent), and Prairie (11 percent), all indictors of significant avoidance of US 95 corridor congestion.

3.9 Summary

From the assessment of existing conditions the following "highlights" are identified:

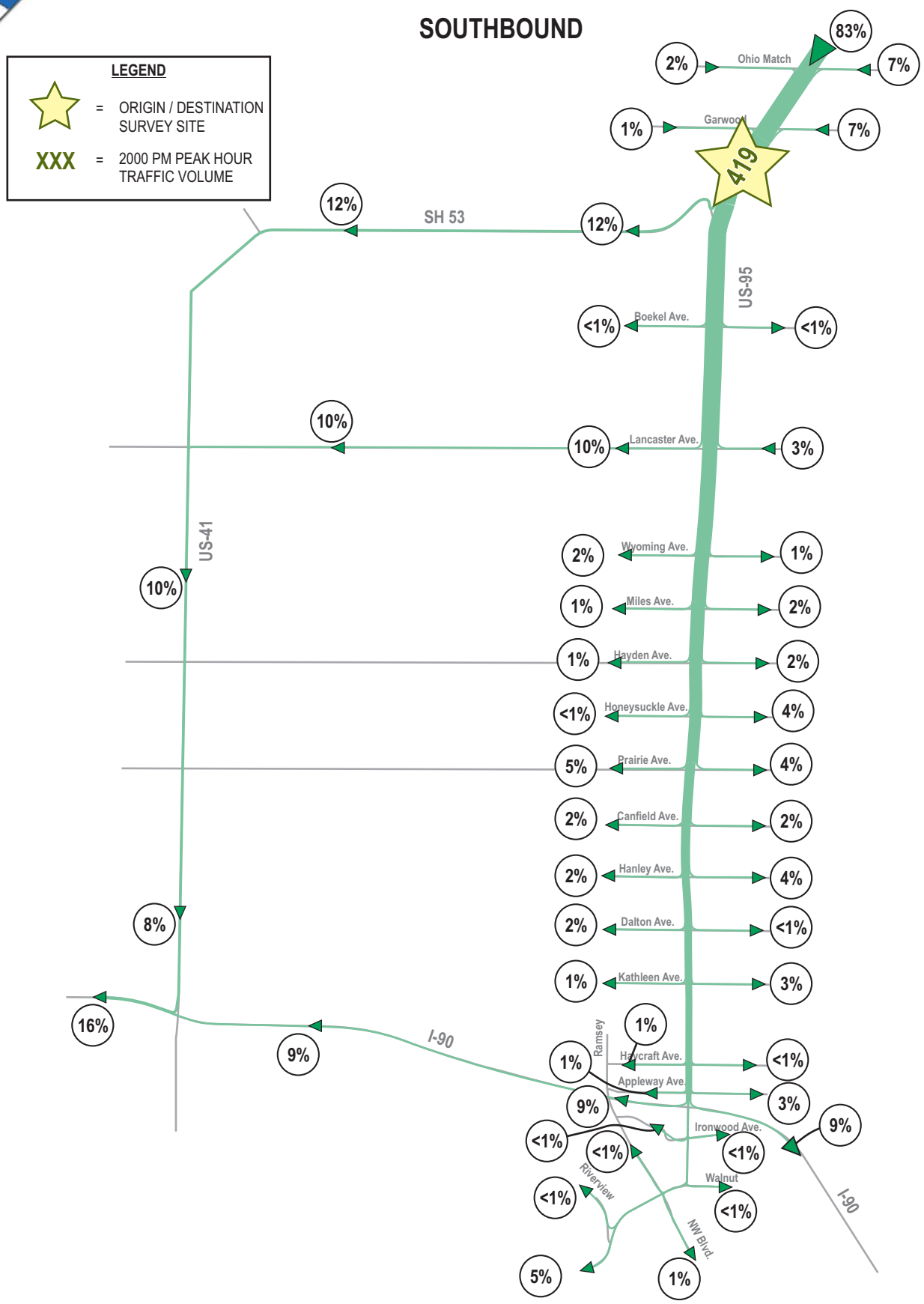
- US 95 is a North America Free Trade Agreement (NAFTA) route, and the only statewide highway that links the Idaho Panhandle with the rest of the state;
- US 95 carries a variety of traffic, and volumes range significantly through the Coeur d'Alene and Hayden areas;
- Most of the traffic on US 95 is local, where one or both trip ends are with the US 95 study area;
- Much of the recent Coeur d'Alene area growth has occurred within the US 95 corridor; the local arterial street system is not fully developed to support the current and planned development within the immediate corridor;
- Current traffic operations on US 95 and many of the local arterial routes are poor; and

It appears that user demand and expectation is exceeding the intended function and design capacity of US 95.

US 95 Origins - Destinations (2000 PM Peak Hour)
North of SH 53

Figure 3-19A

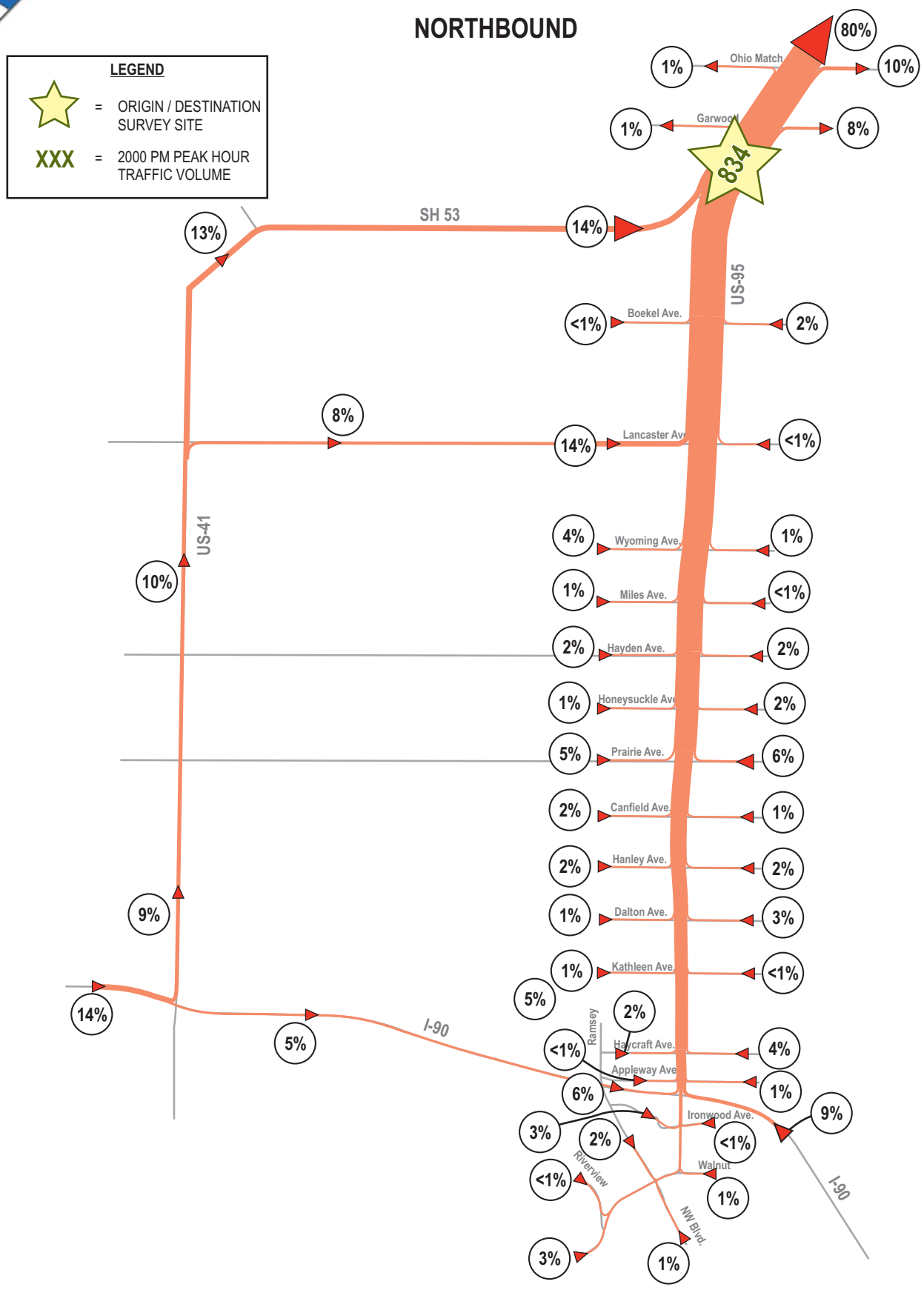
DISTRICT 1
Idaho Transportation Department



US 95 Origins - Destinations (2000 PM Peak Hour)
North of SH 53

Figure 3-19B

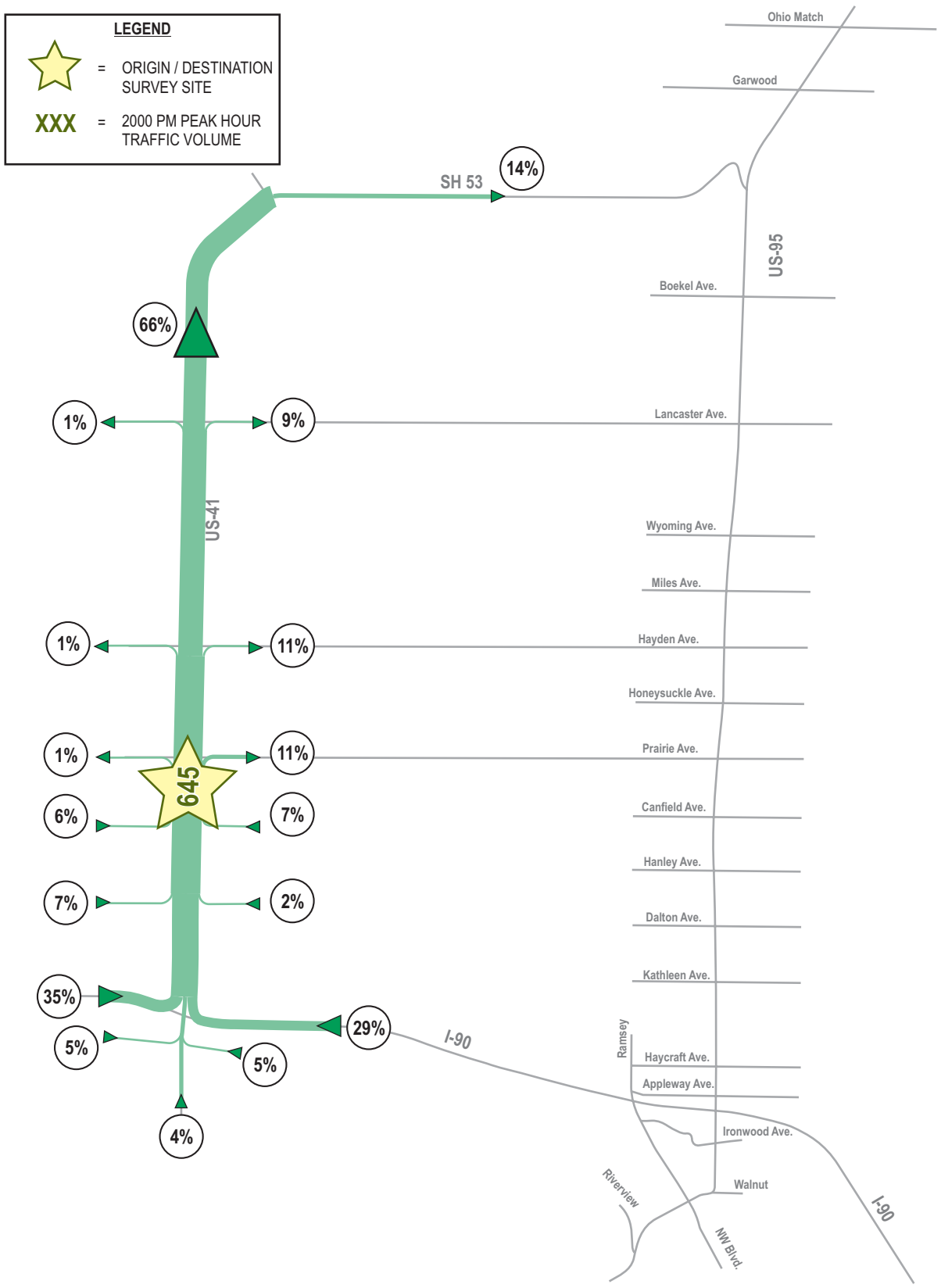
DISTRICT 1
Idaho Transportation Department



SH 41 Origins - Destinations (2000 PM Peak Hour)
South of Prairie

Figure 3-20A

DISTRICT 1
Idaho Transportation Department



SH 41 Origins - Destinations (2000 PM Peak Hour)
South of Prairie

Figure 3-20B

DISTRICT 1
Idaho Transportation Department

SOUTHBOUND